Occupational Hazards

the magazine of industrial safety • fire protection • housekeeping **JUNE 1961**

AN INDUSTRIAL PUBLISHING CORPORATION MAGAZINE

Directory of Fire Protection Equipment

14th annual buyer's guide to products and sources

EDITORIAL DEPT
UNIVERSITY MICROFILMS INC
313 NORTH FIRST ST
ANN ARBOR MICH MI-73

How the Pros Look at Plant Security

READER REPORT

Safety Man: Engineer or Educator?

Franchise circulation reaches those who need to read this magazine—our distilled writing makes reading easy

CLEAN BILL OF HEALTH

. . . courtesy PAX LSHD—GSC*

This worker's hand receives regular professional care with PAX Lano-Sav Heavy Duty Granulated Skin Cleanser. This hand is washed . . . and washed hard . . . 5 or 6 times daily. It is clean, yet free from all roughness. No Dermatitis here. No dry skin lesions. No chapping, summer or winter. No retarded finger dexterity due to defatting. This hand is 100% efficient.

Factory hands need "prescription" cleansing. PAX Lano-Sav Heavy Duty Granulated Skin Cleanser is a scientific skin formula. Like a doctor's prescription, it is compounded under strict quality-control standards . . . from rich soaps, lanolin, and exclusive moisturizing emollients not found in any other skin cleanser. Gentle, flat-milled, biodermic processed scrubbers banish toughest grime (even radioactive isotopes of iodine^{131} and phosphorus^{32}) quickly and easily while fine skin conditioners and moisturizers are helping to restore the natural protective acid mantle of the skin.

Professional hand care is not expensive. Quoting a typical long-time user of PAX products, "We actually save $25.00 per day in our 7,000 employee plant by using PAX Lano-Sav Heavy Duty Granulated Skin Cleanser in preference to cheaper cleansers. Aside from this savings, and which pleases us even more, we have never had an employee complaint".

Let PAX LSHD—GSC* prove itself. The prescription form below entitles you to a generous sample of PAX Lano-Sav Heavy Duty Granulated Skin Cleanser to test in your own plant or shop or home.

*Pax Lano-Sav Heavy Duty® Granulated Skin Cleanser

PAX

G. H. PACKWOOD MANUFACTURING CO.

1545 TOWER GROVE • SAINT LOUIS 10, MISSOURI

OVER 30 YEARS OF LEADERSHIP IN SCIENTIFIC SKIN CARE

℞ *Sample PAX-LSHD to:*

NAME _____

TITLE _____

CO. _____

ADDRESS _____

CITY _____ STATE _____

G. H. PACKWOOD MFG. CO.
1545 TOWER GROVE, ST. LOUIS 10, MISSOURI

2661-D

Circle No. 1 on reader service card

New PAINT SPRAY RESPIRATOR C-251 BY PULMOSAN

Now you can have positive protection against all paint sprays and vapors... lead-based, enamels and lacquers... with single-cartridge comfort. Approved by the U. S. Bureau of Mines, the new C-251 Paint Spray Respirator joins the Pulmosan *interchangeable* C-200 respirator series, with its many exclusive advantages:

- *Lightweight, compact, easy-to-wear single cartridge*
- *Convenient re-usable plastic clip cap*
- *Independently replaceable pre-filter and cartridge*
- *Paint spray cartridge interchangeable with other C-200 filter units*

Yes, it's economical and easy to add paint spray protection to any C-200 series respirator you now have. Or you can start your C-200 series now with the C-251 for paint sprays, and add interchangeable filter units for any and all hazards for which respirators are recommended.

For complete information and prices, write:

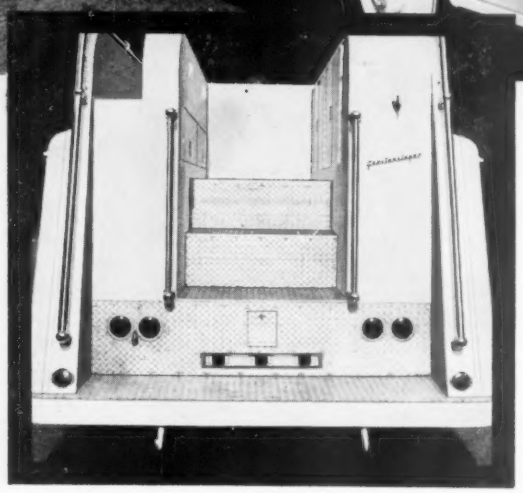
PULMOSAN STOPS Accidents

Pulmosan SAFETY EQUIPMENT CORP.

644 Pacific St., Brooklyn 17, N. Y. • STerling 9-0200 ■ 1007 Washington Ave., St. Louis, Mo. • CHestnut 1-9393

Circle No. 3 on reader service card

IS THIS THE STYLE FIRE-RESCUE UNIT YOUR DEPARTMENT NEEDS?



Versatile unit combines fire-fighting and emergency-rescue features . . .

It's first there with water on the fire until other fire-fighting units arrive. It's first on the spot with complete rescue equipment . . . ready to handle any situation.

This highly effective Gerstenslager unit provides complete compartmentation for quick access to all equipment. Body encloses a 300-gallon booster tank and pump. Ample hose is carried. A portable generator furnishes power for flood-lighting and rescue tools.

Local conditions set the requirements for an efficient and effective fire-rescue vehicle, and Gerstenslager has the experience to provide for these special needs. There's a well qualified representative nearby, ready to help you with your planning. His service is available without obligation. Write, wire or phone:

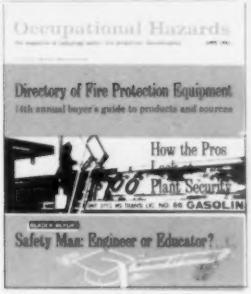
THESE ARE SOME OF THE FEATURES!

Short wheelbase Ford chassis Model C-550 tilt cab. Rear step and deck constructed of 3/16" aluminum tread plate for sure footing. Body and chassis are two separate units. Equipped with emergency front and rear warning lights, two front spot lights, two rear flood lights and roof mounted siren. Ample grab-rails for all crew members.

THE GERSTENSLAGER COMPANY · FOUNDED 1860 · DEDICATED TO 100 YEARS TRANSPORTATION

GERSTENSLAGER

THE GERSTENSLAGER COMPANY • WOOSTER, OHIO • PHONE AN 2-2015
CUSTOM BODIES SINCE 1860
Circle No. 4 on reader service card

Readers' guide to  *for June 1961*

COVER

A Phillips Petroleum Corp. guard at the company's big Kansas City refinery examines an empty tanker about to leave the refinery property. The examination includes looking inside each tank to make sure nothing is smuggled from the grounds. This is a sample of "How the Pros Look at Plant Security."

New Hazards New Methods

"American industry," says this 9-part feature on fire dangers that only recently have appeared in our factories, "develops a new chemical ever 24 minutes, deals with elements and processes unknown a half dozen years ago."

New Hazards Demand New Methods 25
New Methods To Fight Exotic Fuel Fires 26
Protect Fuel Handlers This Way 27
New Instant-Action Deluge Systems Kill Fires Fast 27
Air Power Prevents Hazardous Location Fires 28
Beat New Chemical Fires With Carbon Dioxide Showers . . . 28
An Atom-Age Fire Taught These Three Lessons 29
New Blowout Panels Vent Chemical Explosion 30
You Can Whip the Pressurized Can Fire Hazard 30

FIRE EQUIPMENT DIRECTORY

Directory of Manufacturers 61
An alphabetical guide to the makers of industrial fire protection equipment and supplies. It includes company addresses.

Directory of Products 67
Classifies the various kinds of fire protection equipment and lists the manufacturers of each.

Directory of Trade Names 75
Lists alphabetically the trade names of industrial fire protection equipment along with the manufacturer-owners of the names.

SAFETY

Top Management: Cornerstone of Safety 34
Part IV of "A Basic Guide to Safety Management" tells you how to get and use top management backing.

Safety Man: Engineer or Educator? 37
This Occupational Hazards survey of 350 safety directors produces a big plug for the teacher in the plant.

Will Injury Rates Outrun Employment? 46
Florida industry raises the old question: "How do you prevent accidents among new workers?"

SECURITY

Here's How the Old Pros Look at Plant Security 42
Here's a lesson, based on plant experience, on how to survey your own industrial security needs.

Don't Neglect These Faces of Security 44
These are aspects of security untrained men easily can overlook—outside agencies take them in stride.

SPECIAL FEATURES

Right off the Docket 47
Reports of court decisions handed down in recently tried workmen's compensation cases.

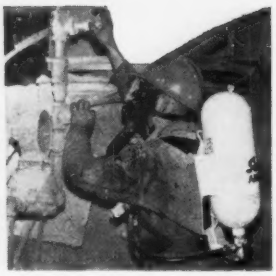
Sudden Injury 60
A photograph, with explanatory text, of an actual industrial accident—for your bulletin board.

DEPARTMENTS

Advertisers' Index 102
Golden Shoe Club 100
Letters 13
Literature in June Ads 101
Names in the News 16
New Products 50
Turtle Club 99
Useful Literature 19

Printed in U.S.A.

Published monthly and copyrighted 1961 by The Industrial Publishing Corporation, Cleveland, Ohio. Volume 23, No. 6. Accepted as controlled circulation publication at East Stroudsburg, Pa. Return form 3579 to Occupational Hazards, 812 Huron Road, Cleveland 15, Ohio.



FRESH AIR

EVERYWHERE

with the

Scott Air-Pak

When emergencies create the unknown in atmospheric conditions, avoid guesswork, eliminate worry . . . equip your men with Scott Air-Paks and you can be sure they have the finest, safest respiratory protection available.

Scott Air-Paks deliver pure, cool, fresh air to the wearer as he requires it. Breathing is easy and comfortable. It is completely independent of surrounding atmospheres. The Scottoramic Mask gives picture-window vision that helps the wearer to spot danger zones quickly for maximum safety.

Let us tell you about the various Scott Air-Pak Models available and their low . . . low operating cost.

Scott AVIATION CORP.
229 ERIE STREET, LANCASTER, NEW YORK

Export: Southern Oxygen Co., 3 West 57th Street, New York 19, New York
Canada: Safety Supply Co., Toronto—Branches in Principal Cities

Scott Pak-Alarm. An Audio-Video safety system for all Scott Air-Paks.

SCOTT AVIATION CORP.
229 ERIE STREET, LANCASTER, N. Y.

Please send me the following literature and prices:

☐ Scott Air-Pak brochure, 6-page, 2-color.
☐ Pak-Alarm Specification sheet.

Name _____ Title _____
Company _____
Address _____
City _____ Zone ____ State _____

Circle No. 5 on reader service card

Occupational Hazards ®

BPA

EDWIN M. JOSEPH ..... *publishing director*
IVAN LOUIS WEINSTOCK ... *general manager*
J. ARLEN MARSH ..... *editor*
PETER J. SHERIDAN ..... *associate editor*
THOMAS F. BERNAKY ..... *assistant editor*
RICHARD F. GONDA ..... *legal editor*
HENRY LEFER ..... *eastern editor*
SCHOLER BANGS ..... *western editor*
H. B. DAVIS ..... *editorial assistant*
DAVID KINSLER ..... *distilled writing*

SERVICE DEPARTMENTS

MICHAEL NASSIF ..... *franchise production*
N. G. KISER ..... *circulation manager*
ALARIC MAUSSER ..... *art director*
ROBERT GAUVIN ..... *reader service manager*

SALES OFFICES

Cleveland 15, Ohio
812 Huron Road
SUperior 1-9620
DONALD E. MURRAY, *representative*

New York 17, N. Y.
60 East 42d Street, Room 836
MUrray Hill 7-3420
LEE HAAS, *manager*
ARTHUR JOYCE, *representative*

Chicago 11, Ill.
520 North Michigan Avenue, Suite 704
WHitehall 3-1655
CHARLES F. GEYER, *manager*
K. L. JONES, *representative*
S. B. TRACY, *representative*

Los Angeles 57, Calif.
672 South Lafayette Park Place
DUnkirk 7-5104
ALAN T. CAZIER, *manager*

London, S.W.1, England
36 Victoria Street,
Sullivan 6072
JOHN A. LANKESTER, *manager*

SUBSCRIPTIONS in the United States and its possessions, $7 a year, $12 for 2 years; in Canada, $8 a year; in the United Kingdom, £3.5.0 a year, payable in sterling at our London office; other foreign, $10 a year. Single copy 75 cents.

PUBLISHED monthly and copyrighted 1961 by The Industrial Publishing Corporation. Volume 23, No. 6. Accepted as a controlled circulation publication at East Stroudsburg, Pa. Return form 3579 to 812 Huron Road, Cleveland 15, Ohio. Printed in U.S.A.

THE INDUSTRIAL PUBLISHING CORPORATION

812 Huron Road, Cleveland 15, Ohio
SUperior 1-9620
LESTER P. AURBACH ..... *president*
EDWIN M. JOSEPH ... *executive vice president*
LEE HAAS ..... *vice president*
CHARLES F. GEYER ..... *vice president*
N. N. GOODMAN, JR. ..... *vice president*
PAUL ROLNICK ..... *vice president*
T. L. DEMPSEY .. *assistant secretary-treasurer*

AFFILIATED PUBLICATIONS: Handling & Shipping, Hydraulics & Pneumatics, Material Handling Engineering, Modern Office Procedures, Power Transmission Design, Precision Metal Molding, The Refrigeration & Airconditioning Business, Welding Design & Fabrication.

OUT-OF-PRINT issues of OCCUPATIONAL HAZARDS are available in complete volumes as positive microfilm copies from University Microfilms, 313 North First Street, Ann Arbor, Mich.

Alert safety directors have shown management . . .

Why nuisance hand injuries need not be a "hot weather" problem

For many of America's top-rank companies, summer used to signal a slump in safety. A rise in temperature produced a rise in the rate of nuisance hand injuries — the kind that cost time and money.

When alert safety directors investigated, the reason was evident: Employees dislike wearing hot gloves in hot weather. And the finest work gloves cannot protect if they're not used.

To help solve this problem, Edmont has developed over the years many types of cooler gloves that "breathe." To its many palm-coated, fabric-back styles, Edmont has now added this remarkable new "air-conditioned" glove, the Perforated Werx.

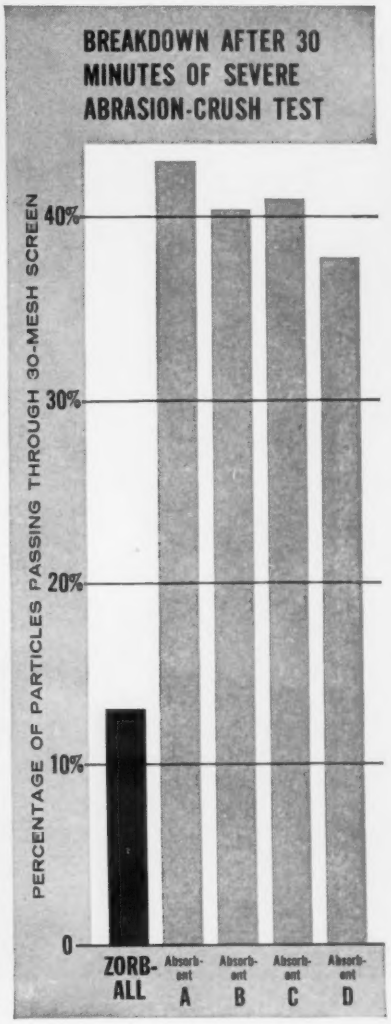
Normal hand movement pumps cooling air through the perforated back for maximum comfort. Yet dirt admission remains low. The gloves are made of Edmont's vinyl-*impregnated* "miracle fabric" and give 5 times longer protection than regular 8 oz. cotton gloves. They are also sure-gripping and 100% machine washable.

FREE TEST OFFER TO LISTED FIRMS: We make many types of vinyl-impregnated, plastic, neoprene, and natural rubber coated gloves to fit different job requirements. Tell us your operation. We will recommend correct glove and send samples for on-the-job testing. Write Edmont Inc., 1244 Walnut Street, Coshocton, Ohio. In Canada, Edmont Canada Ltd., Cowansville, Quebec.

Edmont
JOB-FITTED GLOVES

Circle No. 6 on reader service card

CREATIVE RESEARCH • QUALITY PRODUCTS • PROFESSIONAL SERVICE



Most absorption *Fastest absorption* *Greatest safety*

WHICH FLOOR ABSORBENT IS BEST FOR YOU?

If you put safety first—and who doesn't?—you need Wyandotte ZORB-ALL® because *ZORB-ALL won't break down!* Spectacularly fast and highly absorptive materials are often too soft, too fine to provide real safety—they tend to break down, cake, and become slippery. ZORB-ALL remains effective nearly twice as long as other materials because its rugged, angular particles resist breakdown—provide maximum skid resistance. Play it safe. Get all the facts on ZORB-ALL from your Wyandotte representative or jobber.

Wyandotte Chemicals

J. B. FORD DIVISION

WYANDOTTE, MICHIGAN • LOS NIETOS, CALIFORNIA • ATLANTA, GEORGIA

Circle No. 7 on reader service card *Circle No. 8 on reader service card*

IMPACT PROTECTION!

Heavy, flaming debris smashing over fire fighters' heads is among hazards that top the list of most frequent fire department injuries.

Knowing this, it's easy to see why our engineers have designed HARDBOILED® fire helmets to insure maximum impact protection, with minimum impact transmission. Even when exposed to temperatures as low as −60°F. or as high as +2,400°F., these tough fiber-glass shells surpass Federal and State Specifications for head protection. Yet, complete with either POWER-BLOC® or standard suspension, they weigh only 22 ounces.

We can safely say, "Bullard fire helmets are the best impact protection a fireman can use. Try it and you'll see that no fire helmet surpasses Bullard...in comfort, safety and economy."

Write for fire department catalog.

BULLARD
INDUSTRIAL SAFETY EQUIPMENT

E. D. BULLARD COMPANY • SAUSALITO, CALIFORNIA • ® 3 RIDGES FORM A BULLARD TRADE MARK, REG. U. S. PAT. OFF.

COPYRIGHT 1960, E. D. BULLARD COMPANY

KNOW YOUR SYMBOLS

This symbol stands for bus duct

This symbol stands for QUALITY

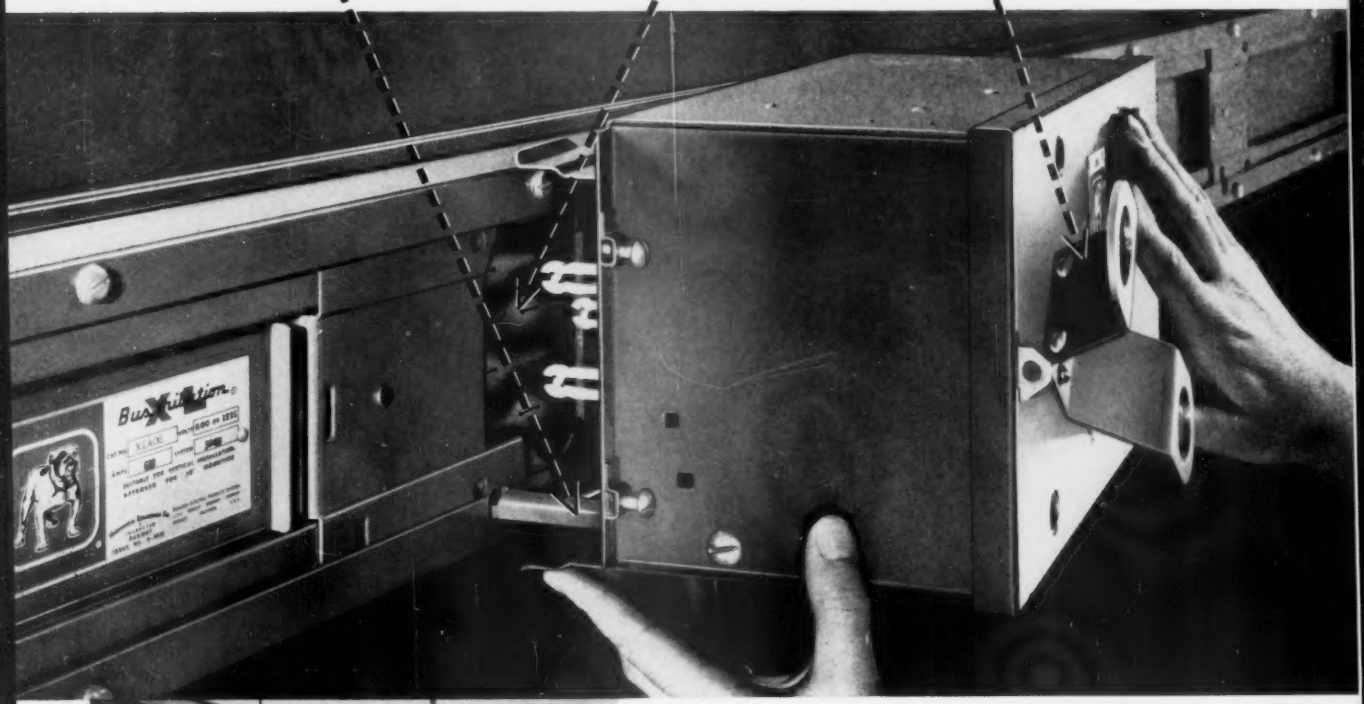
NEW XL BUS DUCT BY BULLDOG

Plugs in "3-way safety" for people, property, production

1 Safer because plug-in safety doors *must* stay closed until XL Safety Plug interlock finger is partially inserted. This finger then prevents door, once opened, from closing on live contacts.

2 Safer because it's the first dead-front plug-in duct. Insulated along full length of each bus bar, even in plug openings, it's the world's safest duct to plug into or work around.

3 Safer because there's no arcing to endanger personnel or equipment. The XL Safety Plug *must* be in the "OFF" position before it can be inserted or before it can be removed.



The XL Bus Duct electrical system was designed by BullDog to provide foolproof safety for your people, property and production! The three features shown above assure maximum protection in utilizing electric power distribution throughout your plant.

Ask the BullDog representative servicing your plant for a safety demonstration.

BullDog Electric Products Division, I-T-E Circuit Breaker Company, Box 177, Detroit 32, Mich. In Canada: 80 Clayson Rd., Toronto, Ont. Export Division: 13 East 40th St., New York 16, N. Y.

I-T-E CIRCUIT BREAKER COMPANY

BULLDOG ELECTRIC PRODUCTS DIVISION

Circle No. 9 on reader service card

They're CESCO's new two-tone Styl-Safe safety glasses...an entirely new design which combines smart styling and practical protection in one pair of glasses. Styl-Safe glasses have broad-bearing temples with head-hugging spatula ends that are not only good to look at, but they hold the glasses securely in position and prevent them from "riding" forward. Available in Briar or Charcoal, temples are joined to the two-tone frame with 7-barrel hinges. Core wire in temples gives firm strength and rigidity to the entire piece. Temple ends, broader than on most safety glasses, provide added strength and improved appearance.

CESCO Styl-Safe glasses feature 6 curve safety clear or anti-glare lenses mounted in deep-seated lens grooves for *maximum* protection against impact. New two-tone glasses are available with keyhole bridge in sizes 20, 22 and 24. Your choice of the following sizes and colors: Charcoal and Crystal • 356CC (46x39 mm) or 358CC (48x41 mm); Briar and Crystal • 356BC (46x39 mm) or 358BC (48x41 mm).

***SEE** your CESCO distributor or write our Chicago office for prices and complete information about CESCO Styl-Safe glasses*

CESCO

CESCO FOR SAFETY

CHICAGO EYE SHIELD COMPANY • 2707 West Roscoe Street, Chicago 18, Illinois

Circle No. 10 on reader service card

A GUIDE TO SELECTION AND USE OF PROTECTOSEAL EQUIPMENT

FOR THE SAFE STORAGE, HANDLING AND USE OF FLAMMABLES

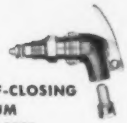
DRUM STORAGE AND TRANSFER

DRUM VENT
For side bung installation. Relieves pressure build-up, provides vacuum relief for 30 and 55 gal. storage drums. Flame arrester built in. FM approval*

END BUNG DRUM VENT
For automatic pressure and vacuum relief of 30 and 55 gal. drums. Equipped with flame arrester. FM approval*

COMBINATION FILL AND VENT BUNG FITTING
Flame arrester permits safe refilling. Automatic pressure and vacuum relief. FM approval*

DRUM TRANSFER PUMP
With built-in fire baffles for safe dispensing from 30, 55 gal. drums. Steady, even liquid flow. UL-FM approval**



SELF-CLOSING DRUM FAUCETS
Rigid or self-positioning types. Fire baffle and strainer built in. FM approval*

SAFE STORAGE OF FLAMMABLES IN PLANT

SAFETY STORAGE CAN
UL-FM approval*

- Double Wall Flame Arresters
- Automatic Pressure Relief
- Liquid-tight, automatic closing caps

Protectoseal Safety Containers are made in a wide range of types and sizes. Particular attention to users convenience and fast, easy operating performance make Protectoseal Safety Storage Cans and Safety Dispensing Cans the choice of discriminating safety equipment buyers. Standard cans are made of Terne Plate. Also available in Stainless, Monel Metal and Hot Tin Dipped to meet special conditions.

SAFETY DISPENSER CAN
UL-FM approval*

FLAMMABLES IN THE LABORATORY

OVAL SHAPE SAFETY CANS
Oval shape Safety Storage and Dispensing Cans require far less storage space, permit more containers to be stored in less area. When grasped by handle, can is in correct pouring position without changing grip. Fire protected filling and pouring openings. Leak-tight seals with automatic pressure relief. Terne Plate is standard; available in Stainless Steel with Teflon cap gasket. FM approval*

SAFETY TILT CANS
Designed for easy, accurate dispensing of measured amounts of liquid into small capacity receiving containers. Available with Tilt Frames for bench top or floor use, or for vertical wall mounting. Equipped with faucets for slow or fast dispensing. Faucet is brought into correct pouring position by tilting the can. Can returns to upright position when released. Cans are 5 or 10 gallon capacity. FM approval*

PRODUCTION and PARTS WASHING

PLUNGER CAN
For quick, one-hand moistening of swab, brush or cloth. Depressing spring loaded dasher pumps measured quantity of fluid into cup. Release and excess drains back into can. 5 sizes—dashers 1" to 7" dia. FM approval*

WASH TANK
Two handled perforated basket for fast, easy parts agitation. Self-draining by resting basket on lugs at top of tank. Renewable fusible link melts at 160°F. automatically drops cover to snuff out fire. 4 sizes ranging from 8½" x 8½" x 9¾" to 15" x 15" x 15". FM approval*

BENCH PARTS WASHER
Keeps workers hands out of solvent. Removable parts basket has handle. Depress spring mounted fire baffle dasher for solvent, release to drain. Without basket, large cloths or swabs may be saturated. 3 pint capacity. Basket and dasher — 5⅝" dia. FM approval*

DISPOSING OF FLAMMABLE WASTE

LIQUID DISPOSAL CAN
Provides safe, convenient intermediate station for receiving and storing waste flammable liquids. Spout cap opens wide and large receiving opening facilitates quick disposal of liquids from laboratory beakers, etc. without a funnel. Cap may be locked open. Available with Terne Plate or Stainless Steel body. Opening protected by flame arrester. Two sizes: 2 gal. and 5 gal.

OILY WASTE CAN
For safe disposal of oily waste or flammable soaked materials. Self-closing cover prevents spontaneous combustion. Foot treadle operated, square shape gives maximum stability and capacity in minimum floor space. Raised bottom with air holes provides ventilation, prevents vapor pockets from forming. 5 sizes: 6, 8, 10, 14, 21 gallons. UL-FM approval**Also available—detachable Self-Closing Drum Cover to convert used 30 or 55 gallon drum or trash can to safe receptacle for combustible materials.

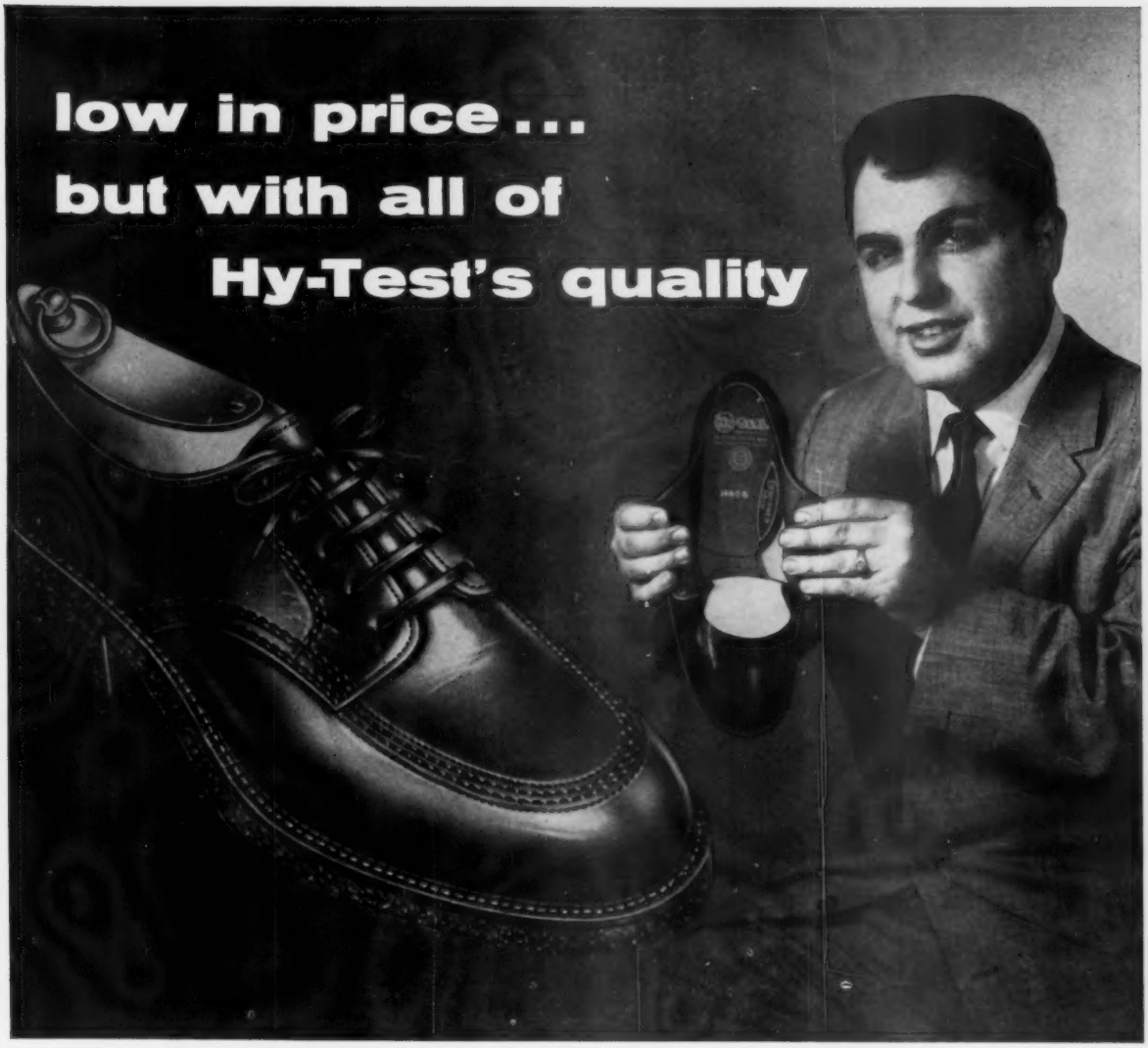
*Factory Mutual
**Underwriters' Laboratories

Write for complete Protectoseal Red Book Catalog

THE PROTECTOSEAL COMPANY

1970 South Western Avenue • Chicago 8, Illinois
IN CANADA: SAFETY SUPPLY COMPANY, TORONTO

Circle No. 11 on reader service card



"This safety oxford gives your men the fine features they want, yet is available at a price that can't be beat! Its solid unit molded Resist-Oil sole and heel is permanently vulcanized to the upper. The shoe is stronger, long-wearing. And its comfort features are built right in for all-day foot pleasure. Available in Burgundy Brown (H606) and Black (H605), sizes C, D, E, EE . . . 6 to 12. Check with your Hy-Test representative or write us today"... HY-TEST SAFETY SHOES, Division, International Shoe Company, 1509 Washington Ave., St. Louis 66, Mo. . . . 2224 N. Tenth Street, Philadelphia 33, Pennsylvania.

Three easy-going features, PLUS!

This oxford is "Comfort-Fitted" throughout . . . extremely flexible, light on the foot and has the soft tred of Hy-Test's Cush-Eze cushioned arch insole. It is fully lined, the soles and heels are designed to help prevent slipping and, of course, it includes the safe, sure protection of the famous Anchor Flange Steel Box Toe.

HY-TEST

MOLDED CONSTRUCTION

HY-TEST INTERNATIONAL SHOE COMPANY SAFETY SHOES

Safety Shoes

Circle No. 12 on reader service card

announcing

the introduction of a steel toe for a shoe YOU would wear

NEW STYLE 300

for the first time a safety toe for real dress or casual shoes

Gone is the day when the majority of safety shoes are too broad in the toe for sports or dress wear.

The brand new Style 300 safety steel toe is tapered, smarter looking — brings safety shoes into step with men's dress shoe design.

Dress or casual shoes with this toe are equally protective for plant wear or for such precarious home jobs as using the power lawn mower.

Sleek — smart — yet SAFE, that's the new Style 300 safety steel toe. Remember — it's made from the best steels — austempered for your assurance of maximum protection.

See your safety shoe supplier about a pair of dress shoes with the new Style 300 steel toe for display in *your* plant. Your men will love them, too!

The new style 300 for dress or casual shoes now being used by your favorite shoe manufacturer

Safety Box Toe Company

812 STATLER BUILDING · BOSTON

Circle No. 13 on reader service card

LETTERS

readers report

We Goofed—but Here's the Real Lowdown

EDITOR:

The article "When Microwaves Run Wild" in the March 1961 issue of OCCUPATIONAL HAZARDS has resulted in many urgent queries from industrial organizations, since its contents are in opposition to previously published and accepted facts.

In an attempt to clarify certain psychological implications that may be derived from the article, and their possible influence on existing industrial safety programs, the following statements derived from research and development evidence are offered:

The exposure used as justification for the article was not the result of microwave radiation, but (of) X-radiation. The exposure was accidental in that the technicians involved completely disregarded established safety practices and notices on the X-ray shielding. They removed this shielding to view the power tube in the microwave generator while the tube was energized. This tube is used in the production of microwaves and in the process produces X-radiation as an unwanted byproduct. Normally the tube is adequately shielded, and no danger from X-rays can be encountered if normal maintenance and operation procedures are involved. This tube is not mounted in the antenna as the article states, but is located in the transmitter building some distance from the microwave antenna. Under no circumstances will the spurious X-radiation produced by the tube be propagated with the microwave energy, nor is it propagated in the immediate area of the tube as long as the shielding is properly installed.

[The article started with the comment that a "man removed the lead shield from a high energy klystron tube. Someone left the power on."—Ed.]

At this point an understanding of these two forms of energy is necessary to adequately understand the difference between microwave and X-radiations. Fundamentally there is no difference between microwave (radio waves) and X-rays, since they are both part of the electromagnetic spectrum. There is, however, a very practical difference in the effect these radiations have on living organisms. The action of ionizing rays such as X-radiation is primarily one of ionization, a process that requires energy in the order of several electron volts.

[An electron volt is a unit of energy equal to that gained by a particle with one electronic charge when the particle moves in a vacuum through a potential difference of 1 volt.—Ed.]

Since the energy associated with electromagnetic radiation is proportional to the frequency, its value is sufficiently high at X-ray frequencies (1 billion billion [10^{18}] cycles per second) to produce ionization. At the much lower radio frequencies, even up to the microwave range (1 mc or 100 million cycles per second), the energy is much too low to make ionization possible. The principal effect of these radio waves is one of heating, owing to the resistance that an electromagnetic wave encounters in passing through a partial conductor such as biological material. This type radiation is, therefore, spoken of as nonionizing radiation, and is measured in terms of power per unit of area, while ionizing or X-rays are measured in roentgens per unit of time.

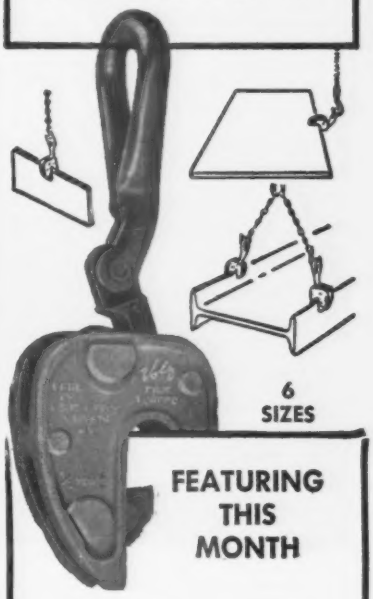
The symptoms described in your March article are typical of those found in X-ray or ionizing exposure. Exposures of microwave are similar to exposures to heat rays, since microwave is nonionizing radiation.

For the past 5 years the Air Force Rome Air Development Center has had a comprehensive research program to determine the biological effects of microwave energy, and has published safety criteria which thus far have proven valid. We have in-

continued on next page

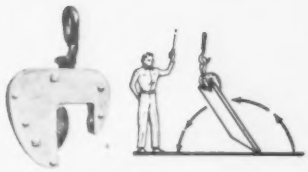
YOUR BEST MOVE . . . MOVE with MERRILL MATERIAL HANDLING DEVICES FOR THE MOST IN *Safety and Economy*

Imitated, but never duplicated, Merrill Lifting Clamps are Drop Forged to give you Safety in Handling and Economy in Operation.



6 SIZES

FEATURING THIS MONTH



LARGE OPENING "G" CLAMP
Designed for lifting and rolling extra heavy and extra thick plates and slabs. Standard 3" ranges to 12". All capacities.

Over 25 Material Handling Devices described in our catalog C-3.

Ask for a copy.

MERRILL BROTHERS
Producers of Drop & Press Forgings
56-45 Arnold Ave., Maspeth, N. Y.

Circle No. 14 on reader service card

Letters

continued from page 13

vestigated every known incident allegedly involving deleterious effects upon humans exposed to microwave energy, and have thus far found no symptoms related to those described for X-rays. As pointed out previously, microwave radiation primarily manifests itself in heat symptoms when humans are exposed to its rays. It appears that the eye may be most sensitive to this type of energy.

As with every other form of energy, microwave is potentially hazardous in extremely large quantities, and standard safety practices should be adopted. These can be listed as follows:

► Power levels in excess of 0.01 watt per square centimeter should be avoided. Areas where this level of energy is encountered should be posted accordingly.

► Radiating devices should be so oriented to avoid directing the energy beam toward inhabited structures or personnel.

► Personnel should be prohibited from discharging under test the output of a microwave generator into the surrounding area. Dummy loads, water loads, or other r-f (radio frequency) absorptive materials should be used to absorb the r-f energy output of such equipment under test.

► X-ray shields should not be removed from microwave power tubes while primary current is on. Remember X-rays can be produced in these devices when power is applied, even though microwave radiation is not evident or measurable.

► X-ray shielding should be periodically checked for leakage which could cause exposure in excess of the national standard.

For additional information on safety procedures, readers should be referred to Air Force Technical Order 31-1-80, titled "Handbook—Radio Frequency Radiation Hazards."

H. S. Brownstein

Secretariat, Ad Hoc Committee
Bioeffects of Microwave
Rome Air Development Center
Griffiss Air Force Base, N. Y.

Editor:

I have just read your timely article entitled "When Microwaves Run Wild." I think it is especially appropriate because of the increasing use of this modality.

The author [E. Molly Watling, who got her story at Lockport, N. Y., where the incident took place] states that microwaves were emitted from the tube in the order of 300 to 2,000 roentgens. I question the use of the term "roentgen" here since it usually refers to X- or gamma radiation. In the situation as described, one would expect that both microwaves and X-rays would have been present. Microwave radiation is usually measured in milliwatts per square centimeter, while the term "roentgen" would apply to X-radiation.

I wonder if personnel monitoring devices with alarms would have been useful in this situation to warn the technicians that they were in a radiation field.

John T. Wilson, Jr., M.D.
Chief, Bureau of Occupational Health
County of Santa Clara
Health Department
San Jose, Calif.

Dr. Wilson's final paragraph is answered by the facts: The technicians, despite warnings and instruction signs, apparently violated standard safety rules by removing the lead shield from an operating klystron tube. We hope soon to give you an authoritative article by an Air Force

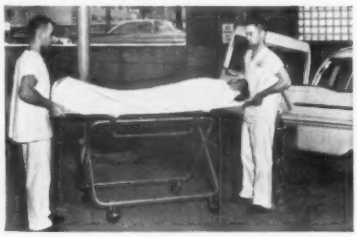
At Last! A SAFE SYSTEM FOR HANDLING THE SERIOUS DISABLING ACCIDENTS WITHIN YOUR PLANT

Stryker
PORTABLE WHEEL STRETCHER

★ Lifting is made easy
★ Patients are comfortable at all times during movement
★ Possibility of post-accidental injury is reduced
★ Folding feature permits quick, easy storage in a minimum of space

The versatile new Stryker Stretcher handles a person injured in your plant from scene of accident . . . to ambulance . . . to hospital emergency room . . . to hospital x-ray and operating room. *All without being removed from the stretcher top!*

The folding base is portable, easily stored in a 5" space and weighing only 29 pounds, complete. The base has locking casters with easy-grip corner handles on the 5 pound stretcher top for carrying the injured. Waterproof nylon litter covers give comfortable support without pad. This lifetime nylon keeps the litter free from deterioration.



See how easily this new Stryker Stretcher solves your accident victim handling problems. Ask for one on 30 day trial . . . write for name of the nearest Stryker dealer.

Stryker Orthopedic Frame Company
420 ALCOTT STREET • KALAMAZOO, MICHIGAN

Circle No. 15 on reader service card

physician on the exact differences in effects on men between microwave and X-ray radiation, to amplify the material in the Brownstein letter.

Old "Sudden Injury" Posters Needed

EDITOR:

We are very fortunate in receiving your magazine regularly through the courtesy of Safety Supply Co. in Toronto, Ontario.

I am interested in knowing what reprints of "Sudden Injury" poster pages are presently available, but since we have passed on our copies of the magazine to various field operations, we are unable to check back through our back issues.

Do you have reprints available for the poster pages you have printed for, say, the last year or 18 months? We would be interested in purchasing a number of each reprint if they are available. . . .

F. W. STEVENS
Employment Supervisor
Abitibi Power & Paper Co.
Sault Ste. Marie, Ontario, Canada

Many "Sudden Injury" posters we published in the past are still in stock, although in most cases quantities are limited. These prices apply: 1-19 copies, 15 cents each; 20-49 copies, 12 cents each; 50-99 copies, 10 cents each; 100-499 copies, 7 cents each; 500 or more, 5 cents each.

We Hit the Air Transport Newsletter

EDITOR:

With your permission, I would like to use a part from the article "GM's Seven Steps to Safety," which appeared in the January 1961 issue, in a future issue of the National Safety Council *Air Transport Section Newsletter*, of which I am presently the editor.

The item I would like to use is the story used to illustrate job training.

R. J. DEE
Ground Safety Engineer
United Air Lines
Denver, Colo.

The quotation from OCCUPATIONAL HAZARDS *appeared in the April issue of the* Air Transport Section Newsletter. *The article on General Motors' "Seven Steps" seemed to go over well with our readers, many of whom asked for tear sheets.* • •

JOMAC GLOVES GIVE CUT PROTECTION THAT EVEN LEATHER CAN'T

The remarkable cut resistance of Jomac's loop-pile fabric glove is a *plus* that even expensive leather gloves do not provide. Moreover, Jomac gloves offer a better grip on oily surfaces and can be reconditioned time after time.

For maximum hand protection, it's North PVC Gloves. They offer better fit, greater dexterity, more comfort and superior safety in handling chemicals, oils and greases.

To keep outdoor workers dry, comfortable and safe in foul weather, insist on North PVC Wet-Weather Clothing . . . resistant to most oils, greases and chemicals, tough, flexible, non-aging and waterproof.

WRITE TODAY FOR A FOLDER DESCRIBING THESE PROTECTIVE JOMAC PRODUCTS

JOMAC

Jomac Inc., Dept. C
Philadelphia 38, Pa.

In Canada: James North Canada Company Ltd., Simcoe, Ont.

"Jomac Sells Quality . . . and Quality Sells Jomac!"

Circle No. 16 on reader service card

NEW

from HAUS OF KRAUSE

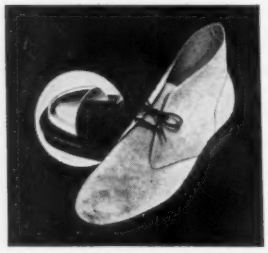
LIGHTWEIGHT SAFETY SHOES
REDUCE FATIGUE TO CUT ACCIDENTS

• SMART CASUAL LOOK

• RESIST ACIDS, ALKALIS WATER, SOIL • STEEL SHANK SUPPORT

Even men who resist ordinary safety shoes go for the lightweight comfort and good looks of LITE KNIGHT Safety Shoes. They weigh a full pound less per pair—and this adds up to an amazing half-ton saved for every mile walked.

Gray, Loden Green or Houn' Dawg brushed pigskin uppers are tanned with Kemi Klad to keep their soft, casual look. The natural breathe-ability of pigskin means healthy ventilation. And thick, springy, oil-resistant neoprene soles cushion every step.



◀ Casual oxford or chukka styles in this exclusive Haus of Krause construction that permits the use of lightweight materials in LITE KNIGHT Safety Shoes while meeting all ASA requirements for toe protection.

Industrial jobbers interested in acquiring a franchise, write to Haus of Krause, Rockford, Mich.

HAUS OF KRAUSE
SAFETY SHOES

Circle No. 17 on reader service card

NAMES IN THE NEWS

people • companies • associations

William Wilson Scott, president of *Federal Sign & Signal Corp.*, Blue Island, Ill., died suddenly of a heart attack April 1. Scott, with Federal

W. W. Scott

W. J. Smith

Sign for nearly 40 years, has been its president since 1953. . . . *William J. Smith*, vice president of *Thom McAn Shoe Co.* (New York City) and general manager of its safety shoe division, has recently been given the added responsibility of foreign and domestic sales outside of the company's own stores. This includes civilian sales to armed forces retail outlets and sales to agents in foreign countries.

J. Drenon Bone has been named southern regional sales manager for *Scott Aviation Corp.*, Lancaster, N.Y. Bone previously held a similar post with the *Dockson Corp.*, Detroit.

Lehigh Safety Shoe Corp., Emmaus, Pa., has named *Raymond Codrea* director of the Lehigh division and *Bernard R. O'Donnell* division general manager. Codrea has sold for Lehigh for 13 years; O'Donnell moves up from assistant to general manager. The new management team succeeds *Frank Griswold*, who resigned to go into business for himself. Lehigh Safety Shoe Corp. is a division of *Endicott Johnson Corp.*

Hubert L. Clover, safety director of *International Shoe Co.*, played host recently to members of the executive committee of the meat packing, tanning, and leather products section of the *National Safety Council*. The 22 committee members toured International's rubber and shoe manufacturing plants in Hanibal, Mo. Later, they discussed safety techniques and communications. • •

Circle No. 18 on reader service card ➡

Carling Cares about safety...so much so, they "carry on a war" against both the environmental and human factors that combine to cause accidents. Their approach has paid off handsomely for five consecutive years—a perfect record that boasts 2,001,690 consecutive accident-free man-hours. Mr. Herbert Naegele (below), personnel and safety director of Carling Brewing Company, sees *preparedness* as the major difference between true safety and mere mechanical protection. Willson's new gas mask development ...a one-piece strapless headgear which produces a perfect airtight fit in *four seconds*...follows this preparedness concept perfectly. Gives valuable extra minutes for quick, safe emergency operation of process equipment in Carling's plant.

WILLSON®

SAFETY IS WORTH WORKING FOR
WILLSON SAFETY CLINIC

turn page

Worker comfort and complete closure: New Willson Tite-Seal headgear permits fitting gas masks airtight in four seconds. Two ratchet knobs set quickly for permanently adjusted fit. Picture-window MonoGoggles®, Willson safety glasses, and Willson industrial gas masks provide comfortable protection Carling workers wear with confidence.

Unbroken string of 2,001,690 man-hours of safety and productivity with Willson

Here's how quickly extra care and effective concentration on the lowest possible accident rate improved safety during a nine-year span at Carling Brewing Company:

Year	Lost-time accidents per million man-hours worked
1952	20.04
1953	17.03
(Safety program initiated)	
1954	12.42
1955	2.92
(Eye protection made mandatory)	
1956—present	**zero**

Added assurance that this company will extend its string of 2,001,690 hours of accident-free production is Willson's new Tite-Seal® headgear for gas masks—the first real headgear improvement in 20 years. Used on Willson Universal gas masks, this exclusive safety feature assures Carling workers finest possible protection against ammonia leaks.

Besides being comfortable, this contoured plastic headgear permits fitting a mask airtight in *four seconds.* With it, Carling workers can remove their gas masks from a storage cabinet and safely turn off a compressor valve in less than *ten seconds.*

The integral plastic headgear can be adjusted easily to any worker's head by turning two ratchet knobs at top and back. This provides a permanent fit, permitting the wearer to don and fit the mask at any time without further adjustment . . . in a single fast motion.

Willson's Tite-Seal headgear fits under safety hats and caps. Durable plastic is easy to clean, and keep clean. It's Bureau of Mines Approved with Willson Scottoramic facepiece gas masks.

Don McGill, McGill Sales, is a trained Willson Safety Clinic graduate and provides personalized safety counseling to Carling Brewing.

Contact your Willson distributor for lung, eye, ear, and head protection . . . complete care for workers in every industry.

SAFETY IS WORTH WORKING FOR
WILLSON
SAFETY
CLINIC

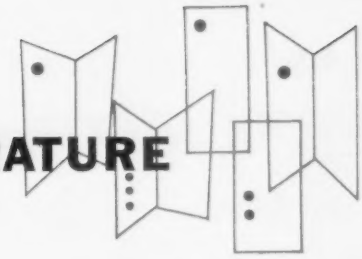
safety is worth working for

WILLSON®

ESB

Willson Products Division
Ray-O-Vac Company
Reading, Pennsylvania
In Canada: Safety Supply Company

USEFUL LITERATURE



To obtain any of the free literature or samples mentioned here, circle the number on the readers' service card corresponding to the number of the item that interests you, and mail the card to us. No postage is needed.

Radiation signs

A detailed, illustrated price sheet dealing with Ad-O-Plastic's embossed plastic radiation signs is available free. Signs warning of radioactive material, radiation areas, and X-rays are in sparkling colors of magenta and yellow. Special wording at no extra cost.

Circle No. 300 on reader service card

Vinyl plastic clothing

Two-color bulletin sheets, generously illustrated, from the Tracies Co., tell the story of vinyl plastic protective clothing. Available is information on suits, boots, industrial gowns, aprons, protective sleeves, raincoats, and custom-made items.

Circle No. 301 on reader service card

Woodworking guards

Brochures issued by Talbert & Sons describe safety guards that do away with all reasons why operators remove them. Photos show jointer and shaper guards in various applications. Literature includes installation instructions.

Circle No. 302 on reader service card

Punch press guards

Safeguard Manufacturing Co. has illustrated information on the many ways its Safeguards can be used. This modern approach to enclosure guarding may be your answer to protecting workers and material.

Circle No. 303 on reader service card

First aid equipment

An 8-page catalog of emergency first aid equipment is issued by Frank Manufacturing Co. Included are litters and cots in various styles, litter cases, and splints for fingers, arms, and legs. Illustrated, 2-color.

Circle No. 304 on reader service card

Alarm, security systems

Bulletin SM-59-361, "Phon-O-Matic", describes fire alarm, emergency communication, and plant security systems. The 2-color, 4-page bulletin is fully illustrated to show the economical, efficient systems offered by Notifier Corp.

Circle No. 305 on reader service card

Oral resuscitator

Three-color literature from Venti-Breather gives instructions for proper use of its oval resuscitator. The operator can apply enough oxygen pressure to prevent brain damage until the victim is revived. Illustrated throughout, concise text.

Circle No. 306 on reader service card

Fire retardant paints

Alim Corp. issues folders on its Underwriters' Laboratories — rated fire-retardant paint. Saf does three vital jobs at once—decorates, stops flame spread, insulates. Ask for technical data sheet 1040-3, color chart, and descriptive literature.

Circle No. 307 on reader service card

"Safety Catalog"

Advance Glove Manufacturing Co. publishes "safety catalog" outlining its full range of safety gloves, clothing, and equipment. Included is a chart showing the recommended gloves for use with chemicals. All

continued on page 21

Circle No. 18 on reader service card

NEW MYCO FIRST COAT

Won't Yellow!

Stops Floor Porosity!

Saves Dressing Time!

Saves Money!

FIRST COAT

is a colorless, semi-permanent primer that fills the pores of composition floors, makes dressings adhere better, stay glossier, wear far longer. It never yellows, laps or streaks; applies easily with mop. No leveling problems. Stripping dressing won't disturb First Coat, and unlike sealers, it can be removed! An excellent cost-cutting way to restore old floors, eliminate efficiency-robbing chemical action between new floors and dressing.

MASURY-YOUNG CO. MYCO®

76 Roland St., Boston 29, Mass.

FOR INFORMATION OR FREE DEMONSTRATION — MAIL TODAY!

☐ Send further information

☐ Have representative call to give free demonstration

Co. Name_____

Tel._____

Address_____

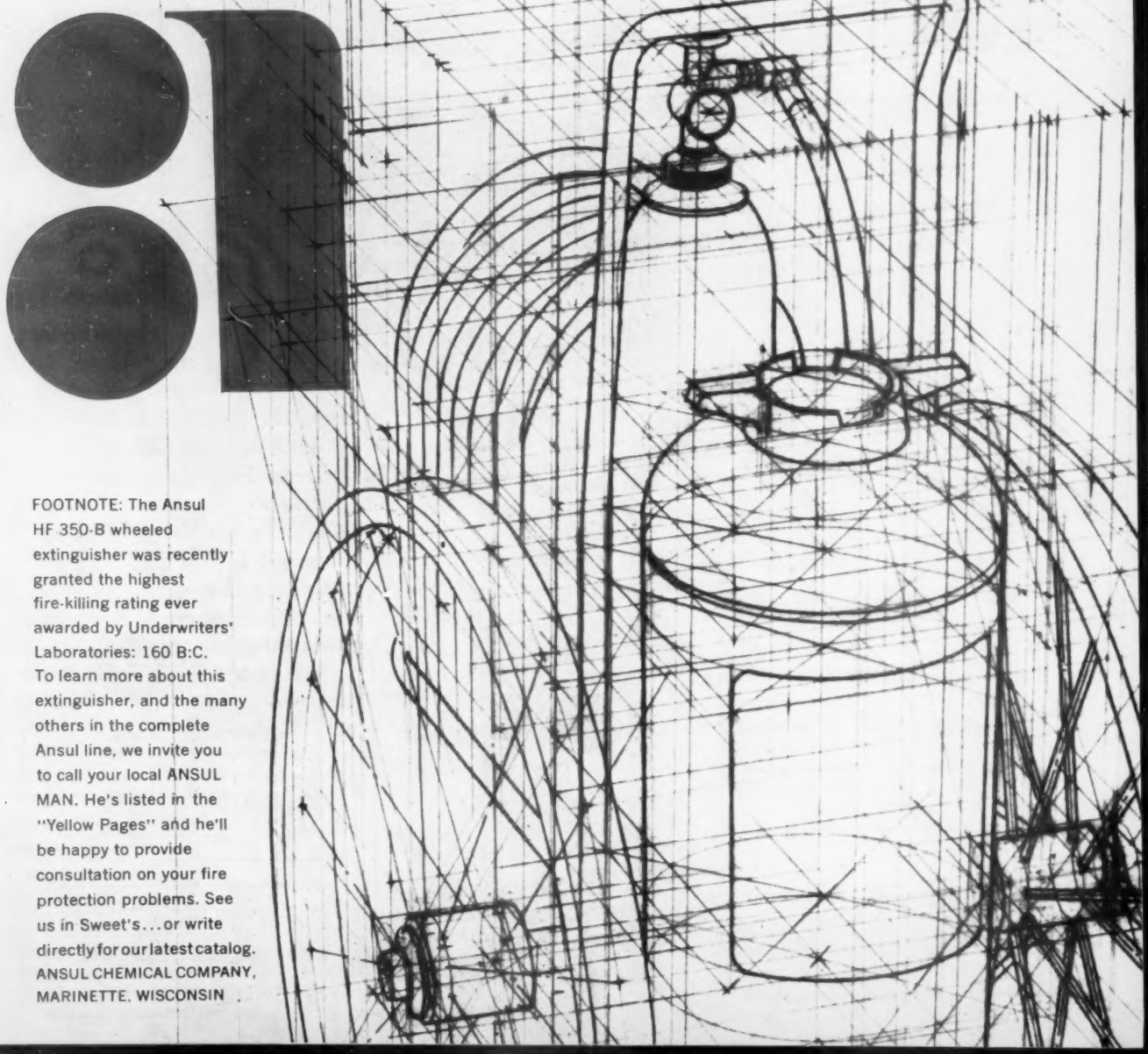
City_____ Zone____ State_____

Signature_____

Title_____

Circle No. 19 on reader service card

For some 20 years Ansul has been making fire extinguishers...with careful, painstaking attention to the details of quality, design and performance. Our extinguishers cost slightly more! They also put out more fire, last longer and are far less expensive to maintain. Ansul fire extinguishers provide basic protection for more than half of America's 500 largest industrial firms...are first choice of those fire protection experts who look at price but understand value. **ANSUL**



FOOTNOTE: The Ansul HF 350-B wheeled extinguisher was recently granted the highest fire-killing rating ever awarded by Underwriters' Laboratories: 160 B:C. To learn more about this extinguisher, and the many others in the complete Ansul line, we invite you to call your local ANSUL MAN. He's listed in the "Yellow Pages" and he'll be happy to provide consultation on your fire protection problems. See us in Sweet's...or write directly for our latest catalog. ANSUL CHEMICAL COMPANY, MARINETTE, WISCONSIN

Useful Literature

continued from page 19

styles are indexed and illustrated. A convenient looseleaf guide for safety directors and buyers.

Circle No. 308 on reader service card

Mask goggles

American Optical Co. offers a two-color folder illustrating its line of flexible mask goggles. These goggles feature six additional improvements for protection and comfort at no extra cost.

Circle No. 309 on reader service card

Eye, face protection

Catalog S-37 has 14 pages covering safety glasses, lenses, goggles, and face shields. This Sellstrom Manufacturing Co. catalog carries illustrations on each page, with product headings and descriptions.

Circle No. 310 on reader service card

Precision switches

Micro Switch, a division of Minneapolis-Honeywell Regulator Co., has a 20-page catalog (104) with photos and condensed descriptions of over 200 items, including miniature switches, special purpose switches, electronic switch-circuit assemblies; and push-button, toggle, limit, proximity, and mercury switches.

Circle No. 311 on reader service card

Hand cleaner

Peck's Products Co. (Pepco) powdered hand cleaners produce a wash cloth action which gently removes imbedded soil. The scrubbers will not irritate the skin. Included in literature available is mention of a group of antiseptic powdered hand soaps.

Circle No. 312 on reader service card

Push button station

A 4-page illustrated bulletin with construction and performance details and prices on an all-rubber push-button station is available from Joy Manufacturing Co. It is said to be corrosion-proof, dust- and moisture-proof, electrically safe, and easy to mount on FS or FD box.

Circle No. 313 on reader service card

Circle No. 20 on reader service card

INSIDE and OUT... NOW MORE COMFORTABLE MORE DURABLE and safer than ever!

EXCLUSIVE POLYETHYLENE DUAL SUSPENSION
strong, pliable, comfortable, easy to clean

1) The polyethylene Suspension is a *single unit* composing both a "fixed" safety factor as well as an "adjustable" clearance from the shell. EACH ONE, INDIVIDUALLY, PASSES FEDERAL SPECIFICATIONS! The entire Suspension, including the headband, is soft and pliable for comfort, rugged for safety, clean in design that stays clean and is easy to clean.

2) The Shell has an added "veil" of fine glass fibres that achieves a thin layer of resin and glass fibres close to the surface for superior weathering and abrasion resistance. These "two features" are exclusive with FIBRE-METAL!

3) New "flush buttons" in shell and headband increase wearing comfort.

4) Polyethylene Suspension will not mildew, sour or rot. Easily cleaned or sterilized. Unaffected by detergents.

5) All edges of suspension rounded for comfort.

6) Laces are recessed to prevent discomfort ...and to adjust for depth.

7) Triple adjustment of headband to *raise, lower or tilt* headband to increase individual comfort or to adjust for adverse work conditions.

8) Provision for chin strap in every hat and cap.

This NEW DUAL Suspension is interchangeable in *SuperGlas, SuperLite* and *SuperLectric* Hats and Caps...and is interchangeable with all Fibre-Metal Suspensions in the field.

Headband of softly pliable polyethylene conforms to head...ADJUSTS TO ANY HEAD SIZE from 6⅛ to 8.

SUSPENSION REMOVABLE, but ONLY headband-sweatband need be replaced... saves times and 30% replacement cost. No dangerous metal parts.

DUAL FIBERGLAS! The fine glass fibre "veil" achieves a thin layer of resin and glass fibres close to the surface for superior weathering and abrasion resistance.

PROVED BY 14½ MONTHS WEATHERING TEST

(A) Surface of an ordinary shell after 14½ mos. actual weathering in sun, wind and rain, 24 hrs. daily...(B) the nearly new look of a SuperGlas shell. Abrasion tests show same results.

ASK YOUR WELDING & SAFETY SUPPLY DISTRIBUTOR FOR BULLETINS

The FIBRE-METAL Products Company | CHESTER PENNA.

In CANADA: Fibre-Metal (Canada) Limited, Toronto

Circle No. 21 on reader service card

GET INTO ACTION FASTER

with flexible, lightweight hose jacketed 100% with DACRON®

POLYESTER FIBER

"Fire!" You get to it faster—fight it more effectively—with hose jacketed 100% with "Dacron"* polyester fiber. You can snake this hose around corners . . . maneuver through debris . . . handle it easier . . . because hose of "Dacron" is more flexible, weighs 25% less than ordinary hose.

And this hose is *always* ready when you need it. Tough jacketing, 100% of "Dacron", resists damage from abrasion and chemicals, won't mildew or rot—doesn't even have to be dried after use or testing. So hose of "Dacron" lasts longer—saves you money on replacements.

Next time you buy hose—make it hose jacketed 100% with "Dacron".

Free booklet tells about more advantages of hose made with "Dacron". Write E. I. du Pont de Nemours & Co. (Inc.), Textile Fibers Dept., DM 1663, 3rd & Greenhill Aves., Wilmington 98, Delaware.

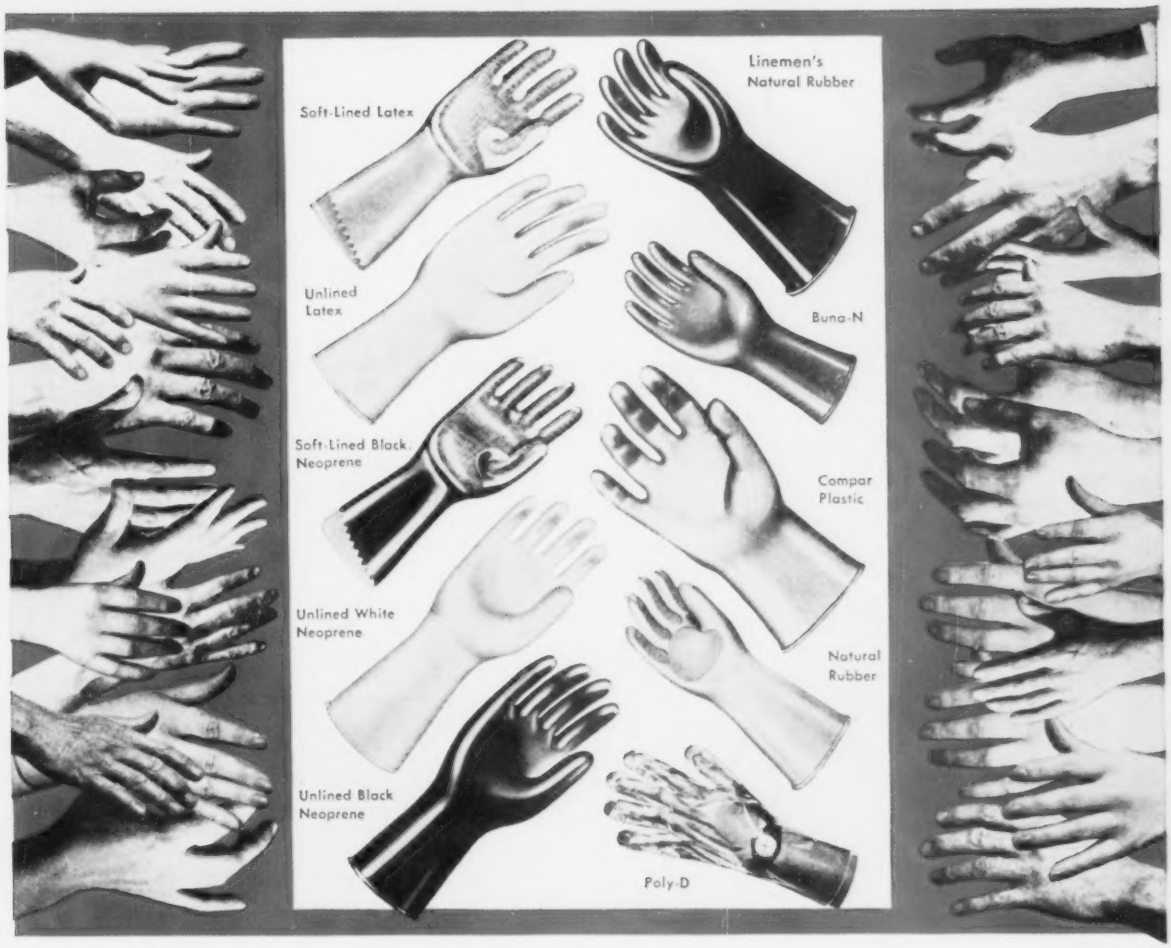
*"Dacron" is Du Pont's registered trademark for its polyester fiber.

DU PONT

REG. U.S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

Circle No. 22 on reader service card



IT TAKES ALL TEN

...And You Can Get 'Em All From One Dependable Source

Ten Quality Lines!
One Dependable Source!

INDUSTRIAL GLOVES
Poly-D
Natural Rubber
Soft-Lined Latex
Unlined Latex
Soft-Lined Black Neoprene
Unlined Black Neoprene
Unlined White Neoprene
Buna-N
Compar Plastic

LINEMEN'S GLOVES
Natural Rubber
(Leather Protectors, too)

Now—from ONE dependable source—the right glove for the best hand protection in any of hundreds of industrial uses. Get the right quality, too—Wil-Gard Gloves with premium-quality materials and advanced design. For longer wear, greater comfort, more value for your dollar, contact your Wil-Gard Distributor.

Sold only through distributors

WR-161-14

PROTECTION FOR THE HANDS OF INDUSTRY • SINCE 1916

WIL-GARD®

THE WILSON RUBBER COMPANY INDUSTRIAL DIVISION CANTON 6, OHIO

A Division of Becton, Dickinson and Company • Pacific Coast Warehouse: 530 Howard St., San Francisco 5, California

Circle No. 23 on reader service card

FIBRE-GLASS

ALUMINUM

POLYETHYLENE

BAUSCH & LOMB
SAFETY
PRODUCTS

Safer... because they fit both: the head and the job!

For maximum protection, hard hats have got to fit both —*and fit right*—the worker and the job hazard.

A recognized leader in the field of Safety Eyewear, Bausch & Lomb *knows* the importance of critical fit—to protective function and to worker comfort.

That's why Bausch & Lomb Safety Headgear is available in the variety you see pictured: full-brim hats and "close-quarters" caps, each in three lab- and field-tested materials—fibreglass, aluminum, shock-proof plastic.

The modern polyethylene suspension is speedily replaceable; plastic zippered sweatband is removable independent of the suspension. B&L hard hats and caps combine lightweight comfort and durability with maximum resistance to impact, penetration and shock. They exceed federal standards for safety. For more details phone the safety equipment distributor of B&L products in your area, or write: Bausch & Lomb Incorporated, 99818 Lomb Pk., Rochester 2, New York.

New revised B&L Safety Products Catalog No. 20. Send now for your free copy.

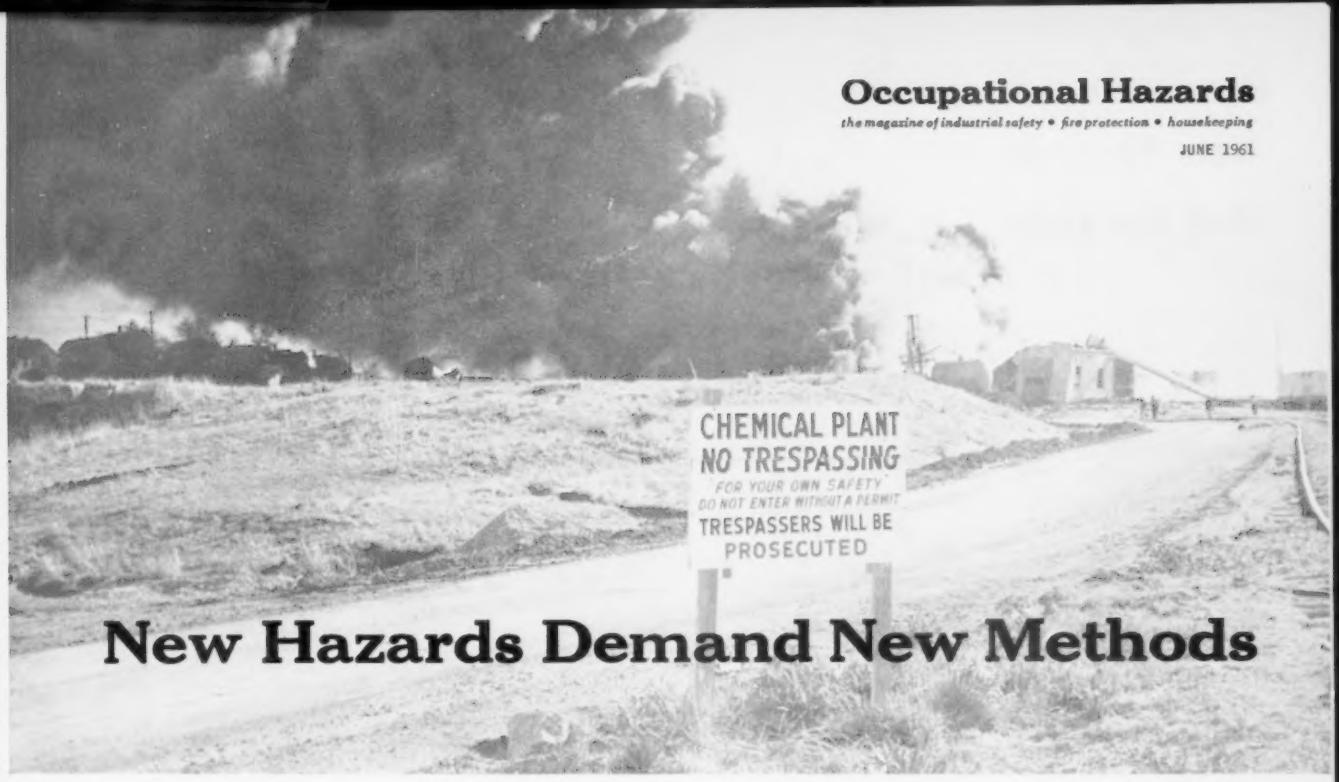
BAUSCH & LOMB
SINCE 1853

Protection PLUS Safety Products

protection + economy + worker acceptance

Circle No. 24 on reader service card

Occupational Hazards
the magazine of industrial safety • fire protection • housekeeping
JUNE 1961



New Hazards Demand New Methods

American industry develops a new chemical every 24 minutes, deals with elements and processes unknown a half dozen years ago

WHAT HAZARDS do you face when you deal with Zircaloy? with Teflon? with liquid sodium? with samarium? with sarin? What agents are best to extinguish fires in waste soaked with nitric acid? Will solid lithium explode or burn?

These are the questions industry asks. They are the questions industry must answer, if its workers and its property and profits are to be protected.

The Atomic Energy Commission drives hard to increase the use of radioactive isotopes in ordinary plants. You don't have to work on weapons or have a research laboratory to use isotopes. You can use them, as many factories do, to test castings for flaws, to measure metal thickness, to eliminate static, to preserve foods, to help maintain high product quality.

A Russian beat us into space. But in hundreds of North American plants, rocket fuels unheard of even a half decade ago are giving safety directors, industrial hygienists, and fire protection experts the jitters. These fuels are as unstable as nitro-glycerine, but industry has to handle them in quantities.

To meet the hazards presented by the new materials and processes, industrial researchers have come up with a host of preventive medicines and treatments.

▶ Brand new extinguishing materials like Purple K, Lith-X, and Met-L-Kyl have been tested on fires involving specific kinds of fuels and metals.

▶ Protective clothing has been made to keep spacemen safe against the dangers they will face beyond earth's atmosphere.

▶ Metalized fabrics, new within the last few years, combine with plastic masks to protect men against raging fire and heat that may run to 2,000°.

▶ All-purpose fire extinguishers now protect areas where many different hazards make it difficult to keep a variety of the right extinguishers in easy reach.

▶ Electronic eyes watch endlessly for wisps of smoke so faint that human eyes can't see them.

▶ Automatic devices wait for the birth of a dust or chemical explosion, trigger extinguishing or blanketing materials before the explosion actually can get under way.

▶ At least one fire detection system sets off an alarm and releases extinguishing materials when a group of invisible molecules, the first indication that a fire is starting, appears in the air.

▶ Some detector-alarm-automatic extinguisher systems go to work instantly when they sense the radiant energy or the ultraviolet rays that accompany even the smallest fires.

▶ Closed-circuit television systems monitor many parts of plants, show guards on duty at central boards exactly where fires are, how big they are, often what has caused them.

▶ Inert gases like argon and nitrogen blanket some of the newer metals, prevent sparks from touching off fires and explosions.

The new hazards and the new methods aren't con-

continued on next page

New Hazards
New Methods *continued*

fined to big plants. Fairly small machine shops are having to learn how to protect themselves when they machine metals ranging from aluminum alloys to zirconium. Plants built in old garages, in old houses, in old barns, produce materials that require new and very flammable chemicals in their preparation.

"It's impossible," a State factory inspector told us recently, "for anybody to keep up with all the new dangers in industry. You go through a plant this year, and maybe it looks all right to you. Go through it next year, and you find it's using materials that could blow the building apart. Yet it's not using the fire protection measures it should.

"In this State, public fire departments are political footballs. If a city administration changes, so does the fire chief. The change probably sweeps out every fire captain and lieutenant. I know of men who joined departments as ordinary firemen simply because they knew that after the next election they'd probably be chiefs.

"That's not only bad for the department, it's bad for industry. You get public fire officers who can't tell manufacturers how to prevent or fight fires in the materials they handle all the time. Inspectors do the best they can to keep up to date, but we don't get into some plants more than once in 3 or 4 years. There aren't enough of us to go around. Anyway, we can't know everything."

If you can't get help from *your* local fire department in learning about new fire hazards and their control, where can you go?

The U.S. Bureau of Mines does a great deal of research and publishes many technical reports on fire and explosion hazards. So does the Office of Technical Services, U.S. Department of Commerce.

Manufacturers of fire extinguishing equipment do constant research for chemical companies that want to find out how to protect themselves against the dangers of their own new products and processes.

Insurance companies, the U.S. Atomic Energy Commission, and the U.S. Defense Department have a great deal of information to help you. In many places, State or Provincial fire marshals can supply advice and technical literature about new fire hazards.

The National Fire Protection Association and the Manufacturing Chemists' Association publish standards dealing with new materials, processes, and fire extinguishing methods.

New Methods To Fight Exotic Fuel Fires

WHAT ARE exotic fuels? Let's call them, for the sake of this article, new, volatile, temperamental fuels that have all the stability of a teen-age girl choosing her first boy-friend.

A lot of plants deal with them.

Most exotic fuels are chemical propellants for rockets, although some high-energy fuels used in aircraft are included in the exotic group.

Dr. E. L. Harris, who heads research and development of missiles and rockets at Wright Air Development Center (U.S. Air Force), Dayton, classified the more common rocket fuels this way:

1. *Hydrocarbon fuels.* These include fuels like JP-4 Avgas.
2. *Alcohols.* This doesn't mean wood or rubbing alcohol. It does mean ethyl alcohol, methyl alcohol, furfuryl, and other alcohols of the same type.
3. *Amines.* They include hydrazine, methyl hydrazine, unsymmetrical dimethylhydrazine, aniline.
4. *Nitro hydrocarbons.* For example; nitromethane and *n*-propyl nitrate.

"Water," said Dr. Harris, "is the most universally applicable firefighting agent. However, there are critical exceptions to application of water as a fire extinguishing agent for chemical propellants."

Large quantities of water—which doesn't mean solid streams under high pressure—will do nicely in controlling fires that involve hydrazine, unsymmetrical dimethylhydrazine, or liquid ammonia. Other exotic fuels and their oxidizers take different methods.

The hydrocarbon fuels, the alcohols, and aniline require standard class B firefighting techniques: blanketing with foam, carbon dioxide, dry chemical, or vaporizing liquids. Soda acid and water won't work on these fires, because water spreads the flames.

Fluorine and chlorine trifluoride, used as oxidizers for exotic fuels, react violently to water. Dr. Harris said bluntly, "Any attempt to extinguish fires in these two chemicals is futile. Allow the fires to burn out and the chemicals to evaporate. Spend your time putting out any secondary fires." The primary fires, of course, should be contained as far as possible. You can handle small spills of fluorine by remotely controlled water fog. The fog speeds the smooth and rapid burning of the chemical.

Some exotic fuels (JP-4, low-pressure distillate, aviation alkylate) usually produce explosive vapors when they're loaded.

"Carbon dioxide blanketing has been proposed for tanker and barge loading of these fuels," said Dr. Harris. "The blanket is believed to isolate the static discharge, which probably occurs at the interface, from explosive vapors in the tanker or barge. Bureau of Mines studies show that if you reduce oxygen content below 14 percent, using carbon dioxide to dilute the atmosphere, you reduce the probability of an explosion."

DRESSED SAFELY to handle high energy exotic fuels—that's what these Marquardt Corp. men are. The one at the left uses a boranes detector to test for toxic vapor concentrations.

Protect Fuel Handlers This Way

BEFORE the Marquardt Corp., Van Nuys, Calif., began to use exotic fuels, it put 60 fuel handlers through ten 1-hour classes and a field demonstration in how to deal with the fuels safely.

These 60, along with 90 others who may occasionally have to handle the high energy fuels or come in contact with fuel handling operations, get physical examinations every 6 months.

The field demonstration that ended the safety course showed workers how to deal with exotic fuel fires. Test fires indicate the comparative effectiveness of different kinds of extinguishing materials. Every fuel handler learned the way to use extinguishing equipment.

The 60 who handle exotic fuels constantly wear protective suits made of vinyl-coated nylon. The suits resist chemicals and fires, aren't affected by great temperature change. Fuel handlers can take off the suits while wearing gloves. The suits are easily sterilized or decontaminated.

Masks are required. Fuel handlers can shift fast from supplied air to gas mask canisters, thanks to a special fitting designed by Marquardt engineers. Handlers usually have to rely on canisters for air when they work on test cells, where space is limited. In most fuel handling areas, supplied air systems meet the need.

New Instant-Action Deluge Systems Kill Fires Fast

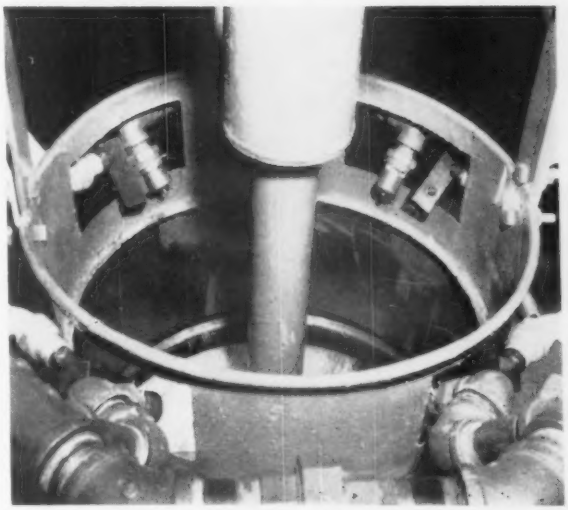
EXOTIC FUEL and oxidizer combine in new solid-grain rocket propellants. Both fuel and oxidizer present fire hazards; combined, they're *extra*hazardous.

One remedy for this combination fire hazard is a high-speed water deluge system. Some systems have explosive charges to meet the micro-second speeds required to control a fire by fast cooling of fuel and oxidizer.

Some propellants must be trimmed by whirling blades to give them accurate grain shape. The blades come close to striking the steel case that holds them and the fuel. Sparks and friction heat sometimes ignite the fuel.

To meet this danger, fast-acting deluge systems cool propellants when fires start—cool them enough to put out the fires before so much energy is released that fire control is impossible. Wet collectors pick up propellant chips constantly, help reduce the hazard of ignition, bury the chips in water safely away from the danger zone.

continued on next page



DELUGE NOZZLES aim at the blades that trim rocket propellants to the right grain shape. Water stands ready in lines and nozzles for split-second use.

New Hazards New Methods *continued*

Air Power Prevents Hazardous Location Fires

An air-powered lift truck helps do away with the danger of explosion and fire in hazardous areas of the Columbus Coated Fabrics Corp. plant, Columbus, Ohio.

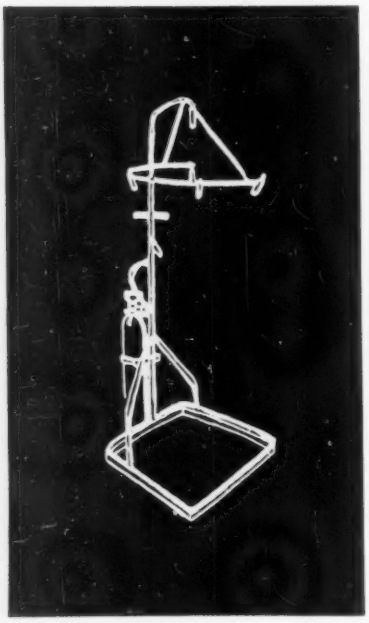
Like many other factories, the plant has to store big quantities of volatile chemicals and paint. Most of the storage area holds open-top, 55-gallon drums of special printing inks used to coat fabrics.

The company had the batteries, electric motor, and usual controls of a portable elevating truck replaced by an air motor that drives the pump. A compressed air connection was installed so the lifting mechanism could be hitched to an airline in the storage room.

The airline circles the storage area. It has push-pull hose connections about every 12 feet. Air pressure of only 50 pounds per square inch operates the truck lifting mechanism. A 15-foot hose runs between the truck and the airline.

Main use of the truck is to lift drums from the racks and lower them to 4-wheeled dollies. The truck operates in aisles with working space little more than 2 feet wide, handles an average of 28 drums an hour.

DANGEROUS storage areas at Columbus Coated Fabrics Corp. are safer because storeroom workers use this air-powered portable drum lift truck.



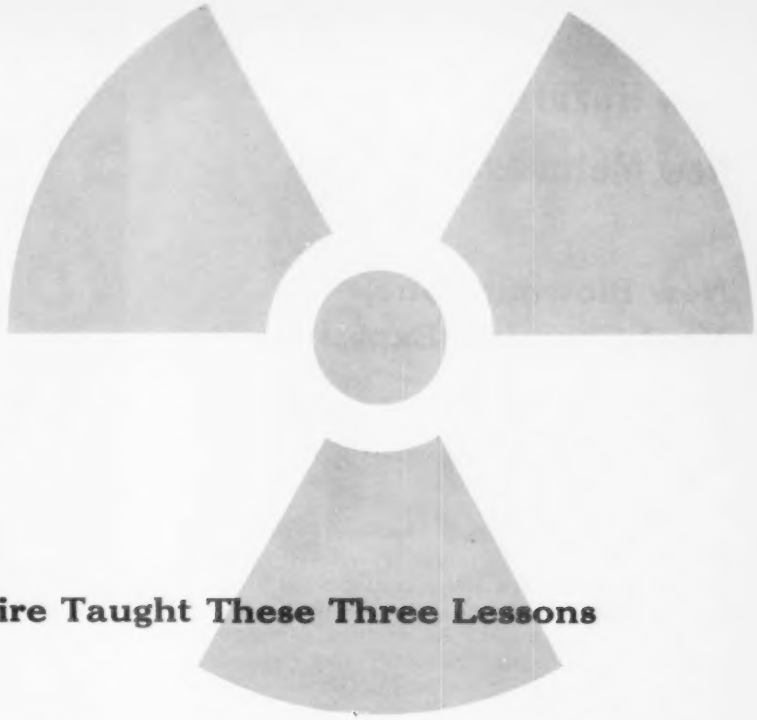
Beat New Chemical Fires With Carbon Dioxide Showers

Many new chemicals react violently with water—fizz, hiss, pop, flare, burn, explode, give off poisonous fumes. Suppose, for example, your clothes are saturated with one of the exotic fuels, then catch fire. You can't douse them with water unless you want to disappear like a rocket.

Grab a blanket and wrap yourself in it? That isn't always easy, even if a fire blanket is handy. Lie down and roll on the floor? That's not very effective, either.

So an Italian manufacturer dreamed up a carbon dioxide shower that looks a lot like the drawing at the left. The shower has several sprays connected by pipes to a carbon dioxide cylinder. When you step under the sprays, the gas envelops you, cuts off the oxygen that supports the fire. Naturally, the fire goes out. Step out of the shower, and the gas shuts off.

The Italian company insists you don't go out, too, despite the carbon dioxide deluge. The gas, says the company, is cool to the skin and doesn't produce any choking sensation.



NEW SYMBOL for radiation hazards is this broken wheel. Many used it earlier, but last year it was officially adopted by the American Standards Association. The right colors are yellow and magenta.

An Atom-Age Fire Taught These Three Lessons

THE ATOM brought more than the ordinary hazards of radioactivity to industry. It introduced fire dangers that most plants never experienced before.

The U. S. Atomic Energy Commission reported a rather small fire in metallic sodium—a small fire that set off, the AEC reported, "an uncontrolled chain reaction."

That didn't mean the fire started a series of megaton-size explosions. The chain reaction wasn't strictly atomic. It involved building the small fire into a bad one.

This is how the AEC put it:

"At 2:40 p.m., an employee [in a plant doing experimental work with metallic sodium] stopped the transfer of hot sodium between two tanks in a pit, after noting that roughly 1 pint had leaked out from a tank connection. While most of the leaked sodium, which spontaneously ignited when it reached the air, was absorbed in vermiculite insulating the tank nearest the lead, some burning sodium splattered onto the floor of the pit, causing ignition of (scrap) paper."

Things really broke loose then:

▶ Workers shoveled calcium carbonate on the blaze to control it.

▶ The paper fire spread to five 100-pound sacks of diphenyl, which were stored in the pit.

▶ At 2:47, workers called the fire department.

▶ While they waited for the department, which arrived 8 minutes later, workers applied Met-L-X and 375 pounds more calcium carbonate on the pit fire.

▶ The intense heat ruptured the sight glasses of two pumps in the pit, released pump oil on the fire.

▶ Black smoke accumulated just as ropes that held roof ventilators burned. The ventilators closed.

▶ At 3 p.m., the smoke was so thick the building had to be evacuated. By that time, the fire department was using carbon dioxide and more calcium carbonate on the fire.

▶ The fire wasn't put out until 4:30. Loss ran to around $50,000.

Three distinct kinds of fire were involved:

Paper. Water usually would be used to fight a paper fire, but water spreads an oil fire and reacts violently with metallic sodium.

Sodium. Special extinguishing agents like Met-L-X, graphite, G-1 powder, or dolomite are intended for metallic sodium fires. But they don't help much when you have an oil or paper fire.

Oil. The oil fire combined with a diphenyl fire. Fire in oil or diphenyl can be extinguished with water, fog, foam, carbon dioxide, or dry chemical. However, these agents don't work with sodium fires.

The AEC safety and health section pointed out three lessons from the combination fire:

1. Exceptionally good housekeeping is essential when you deal with metallic sodium. Paper trash should go in trash barrels, not in open pits.

2. Fire hazards that take completely different firefighting methods and extinguishing agents should be separated as far as possible. For example, don't store oil or diphenyl near sodium.

3. Go over your fire hazards and firefighting methods frequently. Make sure they're up to date. Make sure they satisfy your needs.

The safety and health section bulletin to all AEC plants and laboratories said:

"Special hazards can easily be overglamorized. Sodium unquestionably presents special hazards that are potentially severe and unique. Accumulations of loose paper present an unglamorous potential hazard often undramatically included in the general category of poor housekeeping. . . . It is evident, in retrospect, that while housekeeping within the pit was not poor, it was deficient to a point which permitted a very minor sodium fire to spread . . . into a major incident."

continued on next page

New Hazards New Methods *continued*

New Blowout Panels Vent Chemical Explosion

THE DOW CHEMICAL Co., Midland, Mich., had a hydrocarbon explosion in a plastic development building. Part of what happened appears at the right.

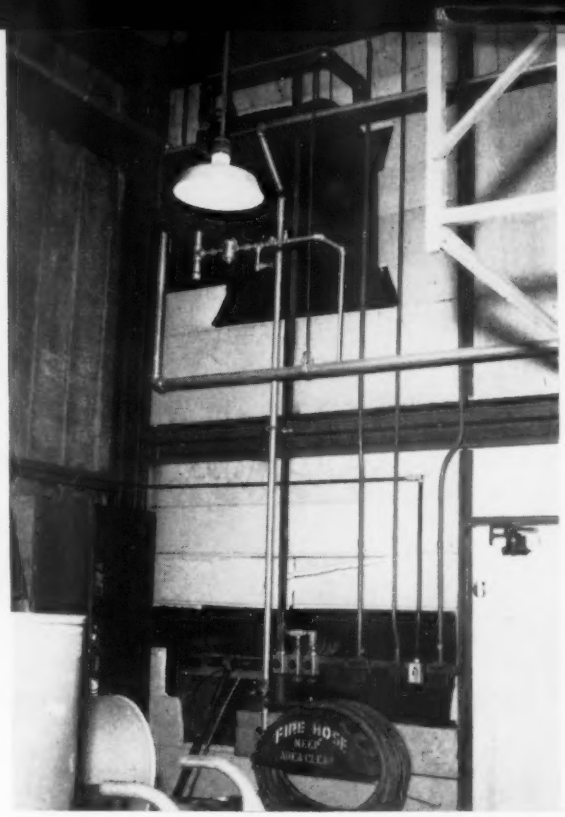
An investigator reported: "Accumulated vapors flashed and ignited the vapor source."

Dow had surrounded the production area with plastic blowout panels—panels made of self-extinguishing polystyrene. The blast and following small fire blew out 10 of 14 panels, melted some of the plastic.

The official report said: "No structural damage other than that to the blowout panels and roof panels. . . . No explosive damage to any interior fixture other than the weight feeders and the control box, which probably was the source of ignition. Not one light bulb was broken, and nothing appeared out of place after the fire."

Polystyrene panels have a big advantage outside their inability to burn: They are less dangerous to people than other blown-out materials. Flying debris is lightweight, isn't apt to cut skin, put out eyes, break bones.

You need a framework to hold the panels, and the framework must be strong enough to bear the building load. The panels themselves are too light for loading. Besides, they're expendable.



THE BLOWOUT PANEL was ripped apart by the blast, but even a light bulb went on working. The panel let the explosive force dissipate in outside air.

You Can Whip the Pressurized Can Fire Hazard

MORE AND MORE plants are using pressurized cans to spray everything from insecticides to paint. They're convenient; they're efficient; they take little storage space. But the gas in them does pose a difficulty. Can labels say, "Don't burn, puncture, or cut."

One place tucked a single aerosol can away in a high pile in a back room. Summer temperatures went up and up. Gas in the can expanded. Abruptly, the can blew a big hole in the storeroom wall, set off a chain of fire and explosion damage that ran into thousands of dollars.

The Allison Division, General Motors Corp., faced the hazards of pressurized cans and licked them this way:

1. Red barrels were set up throughout the Indianapolis plant. Empty aerosol cans went in the barrels. The barrels were dumped daily.

2. If anybody who used an aerosol can couldn't find a red barrel, he set the can *beside* a waste basket—not *in* it. This warned the cleanup squad that the empty can should be given special handling, kept maintenance men in charge of waste disposal from dumping the can on a fire or where extreme heat could make it burst.

3. The safety department pointed out to workers that this careful handling of pressurized cans should carry over into homes. "Use the same precautions," the safety department said in *AllisoNews,* the employees' newspaper, "as Allison safety rules prescribe within the plants. If you should elect to depressurize the cans, extreme care should be observed. The cans may be punctured, but only after the levers have been opened and the cans cease to 'breathe.' "

Credit where credit is due: Photos and information for this section on new fire hazards came from the Allison Division, General Motors Corp.; American Pulley Co.; Atomic Energy Commission; Dow Chemical Co.; Factory Insurance Association; Factory Mutual Engineering Division; International Business Machines Corp.; Mine Safety Appliances Co.; National Fire Protection Association; *New York Times;* Purdue University Fire Engineering School; University of Maryland Fire Engineering School; Wright Air Development Center.

Vehicle Checks

Crime Deterrence

Fire Prevention

Electronic Surveillance

The Burns Guard sees with electronic eyes, too ...yet he costs you 20% less!

Plant protection, like any other vital phase of your business, needs constant re-evaluation to be kept at top efficiency. If your security system hasn't been reviewed lately, it would be a good idea to talk to a Burns Industrial Plant Protection Specialist today.

Burns will analyze your plant's operation, recommending a security system that meets your needs exactly. Burns also investigates periodically in case the needs change.

Burns will provide guards trained in the science of security, and, where feasible, will include electronic protection in the form of TV surveillance and radar detection.

With or without electronic protection, Burns lowers security costs because guard necessities, such as uniforms, sidearms, and such fringe costs as social security, recruiting, training, overtime are included in a complete package.

Every Burns Guard knows: first aid, fire prevention, intruder apprehension, daily log maintenance, time clock supervision, parking lot direction, reception procedures and patrol methods. And each Burns force is under round-the-clock supervision.

No matter what your business, Burns will mind it for you, saving you money initially and protecting your investment continually. Incidentally, a lot of our clients are handling classified U. S. Government contracts.

LET US SHOW YOU HOW Burns Guards can provide modern protection at a 20% or more saving. Just phone, write or wire the Burns office nearest you, and a Burns Security Specialist will give you complete details, at no obligation. Or write for our informative brochure, "It takes more than fences."

Burns is the world's largest SECURITY BURNS SERVICES *industrial security organization*

THE WILLIAM J. BURNS INTERNATIONAL DETECTIVE AGENCY, INC. EXECUTIVE OFFICES: 101 PARK AVENUE, NEW YORK 17, NEW YORK

Circle No. 25 on reader service card

Circle No. 26 on reader service card

THE LOGIC OF PLACING YOUR SAFETY EYEWEAR BUSINESS WITH THE MAN FROM MSA . . .

COMPLETE LINE SELECTION: Mine Safety Appliances Company now supplies industry with a complete new line of eye and face protection. The numerous frames and styles and optional features available suit the needs and tastes of any individual, whether you're talking safety spectacles or fiber glass welding helmets.

Styling of the new M-S-A® Sightgard line is exclusive. Extensive. Complete. We provide clear acetate frames. Metal frames. Frames of plastic on metal. Three solid colors: Flesh, ebony and smoke. Or ebony on crystal. With side shields. Without. Rigid or adjustable nose pads. Universal bridge. And lenses, welding plates and plastic cover plates enough to meet every eye care need.

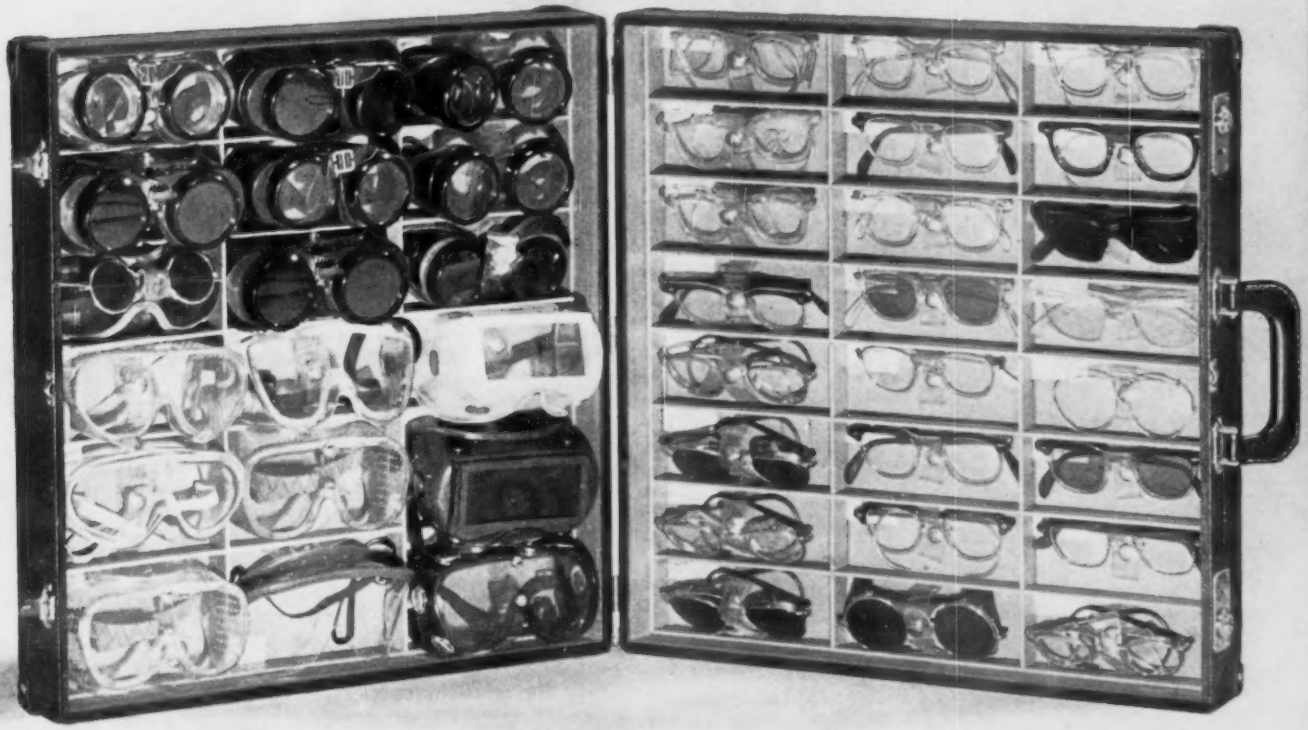
Here then is a truly FULL line. The selectivity it presents to you . . . the unbiased recommendations it makes possible for us . . . brings an added measure of value to any item you care to choose from MSA.

Our new 36-page guide on this subject is also complete in every respect. We'd like very much for you to have one.

MSA

MSA Backs Up Its Label with
Selection • Quality • Research • Experience

Mine Safety Appliances Company
Pittsburgh 8, Pennsylvania



A BASIC GUIDE TO SAFETY MANAGEMENT

Part IV

Top Management: Cornerstone of Safety

We continue here a 12-part series on the fundamentals of industrial safety management. We have no pet theories of statistical control, no prejudice that favors one kind of successful program over another. We report, instead, as simply as we can, how to set up a safety program, what you need to keep it going, and how it will benefit your plant. Even if you have a program now, you will, we think, find ideas here that will help you.

How To Plan a Safety Program
The Course You Can't Afford To Fail
Where Does the Supervisor Fit?
THIS MONTH ▶ *Top Management: Cornerstone of Safety*
NEXT MONTH ▶ *Inspection: Useless Without Followup*
Learning From Experience
Fire Prevention: Fight for Survival
Two Keys to Workers' Welfare
A Clean Plant: Safety's Strong Ally
Fill the Gaps in Your Knowledge
Your Role As a Good Neighbor
Adapting Safety Basics to Your Plant

BUSINESS EXECUTIVES, like the rest of us, come in all shapes, sizes, types, and temperaments. But they have in common a preoccupation with two questions:

- ▶ What will it cost?
- ▶ Will we profit from it in the long run?

Without answers to those questions (and a rousing affirmative on the second one), you'll be lucky to get a polite hearing when you talk to management about your safety program.

Use these information sources

Where do you get the answers?

The answer to the first (What will it cost?) is pretty easy to come by. It's largely a matter of picking up the telephone.

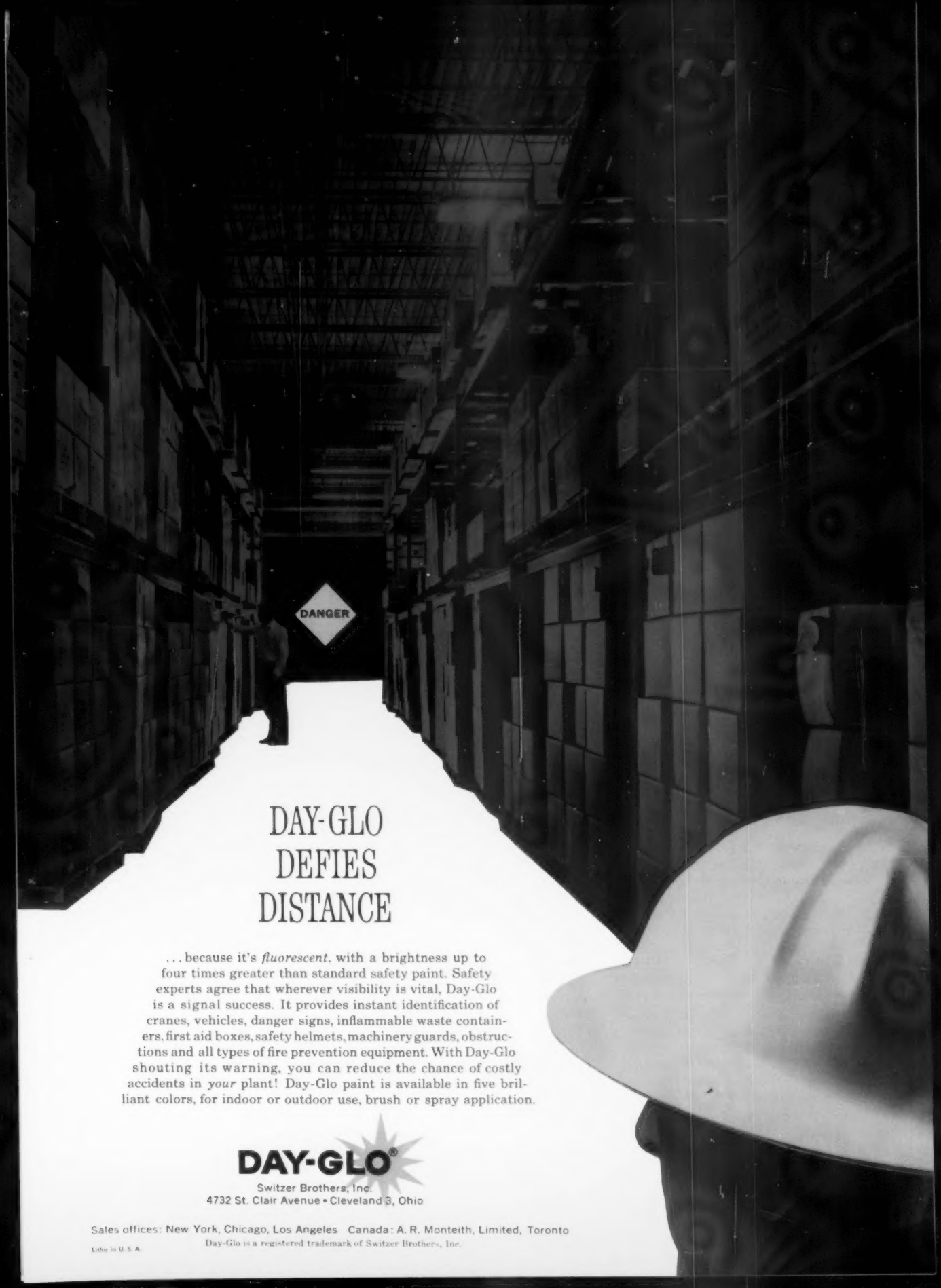
The answer to the second (Will we profit?) demands research and close figuring. Arm yourself with facts. Draw on your own records to compute medical and compensation costs. Huddle with methods engineers, if your company employs them, or with the plant production boss, to estimate lost production time due to injuries and the costs of reduced efficiency due to the absence of experienced workers.

Line your library shelves with data from the National Safety Council, the National Fire Protection Association, your insurance company, and your compensation board or industrial commission. You'll get figures from these sources on the total cost to industry for nearly every type of injury and accident. From them, you'll be able to work up some pretty startling average costs.

Get the lowdown from your compensation board or insurance carrier on its penalty rate for below-par safety performance. Find out what credits you can qualify for through superior performance.

continued on page 36

Circle No. 27 on reader service card →



DAY-GLO DEFIES DISTANCE

. . . because it's *fluorescent*, with a brightness up to four times greater than standard safety paint. Safety experts agree that wherever visibility is vital, Day-Glo is a signal success. It provides instant identification of cranes, vehicles, danger signs, inflammable waste containers, first aid boxes, safety helmets, machinery guards, obstructions and all types of fire prevention equipment. With Day-Glo shouting its warning, you can reduce the chance of costly accidents in *your* plant! Day-Glo paint is available in five brilliant colors, for indoor or outdoor use, brush or spray application.

DAY-GLO®

Switzer Brothers, Inc.
4732 St. Clair Avenue • Cleveland 3, Ohio

Sales offices: New York, Chicago, Los Angeles Canada: A. R. Monteith, Limited, Toronto

Day-Glo is a registered trademark of Switzer Brothers, Inc.

Litho in U. S. A.

Unique New Suspension Makes APEX Safety Hats & Caps

Exclusive Most Efficient Design Cuts Suspension Weight 30%

Most efficient suspension ever designed . . . offers these outstanding advantages.

- Simplified two-part design provides broader and better distribution of impact, prevents hat wobble, offers three-position adjustment for crown height and wearing angle.
- New formula polyethylene construction . . . resists cracking from long exposure to ultra-violet light.
- Insures minimum 1¼" safety margin between head and shell.
- Has greater range of adjustment to fit head sizes from 6½ to 8.
- In assembly easily snaps in and out of T-slots for quick replacement and fits any APEX hat and cap now in service.
- Built-in safety construction eliminates metal parts, buttons and tie string.
- Easy cleaning — greater hygiene.

There's an APEX safety hat or cap for every application:

FIBREGLASS.... in eight colors
ALUMINUM..... in five colors
ELECTRICAL... in safety yellow
MINERS ..... in safety yellow

Write today for detailed literature.

SAFETY DEPARTMENT

Boyer-Campbell

Division of The WHITE Sewing Machine Corporation

801 W. BALTIMORE AVE. • DETROIT 2, MICHIGAN

Circle No. 28 on reader service card

Management: Cornerstone of Safety

continued from page 34

Chart all these data. Chart, too, the amount of money needed to finance the safety project you are recommending.

Subordinate, but don't omit, the intangible dividends of a comprehensive safety program. They include worker welfare, better morale, improved community relations.

What kind of managers have you?

Size up the executives you're trying to persuade, to gage your most effective approach. What are their leanings? Do they have the legal mind? If so, in soliciting their support, maybe your strongest hook is your government safety and health laws.

Or are your executives especially interested in workers' welfare? Are they acutely aware of the suffering an accident can bring? If they are, emphasize the human side of accident prevention.

Are your executives especially concerned with the image of the company in the community? Then talk to them about the public and community relations value of a safe plant.

Try the wage cost approach

Remember the executive has many demands on his time, many matters besides safety to think about. It's up to you to keep him informed on the benefits of the safety program, the possibilities it offers management to improve the standing and profits of the company.

One safety director told an OCCUPATIONAL HAZARDS editor recently of a report he was preparing for his management. The report was based on job evaluations. This entire industry sets hourly rates on the basis of the skill jobs require, working conditions, and job hazards. Job hazards are usually worth 10 to 20 percent of the hourly rate.

Let's put the hazard rate at the lower figure, 10 percent. Suppose we're dealing with a job which pays $2.80 an hour. Twenty-eight cents of that represents job hazards.

Install a hoist, diminish lifting hazards, and you may lower the pay rate by 3 cents or more. In a big plant, that would pay for hoists in short order, save money even as the accident prevention program was strengthened.

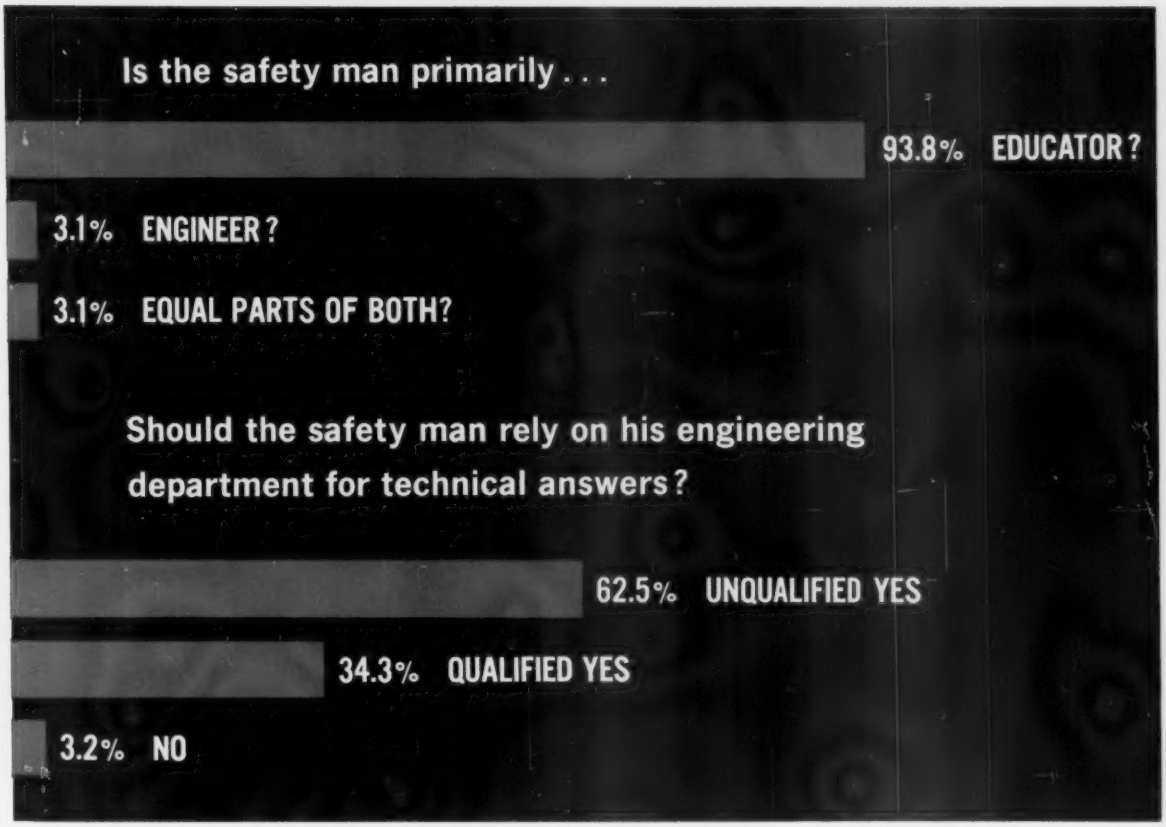
We mention this, not because the method has universal application, but because it shows how you can use the raw factual material in your plant to put across your safety program.

Management has to ACT

"It's not enough for top management to give financial support to a program, even to endorse it," another safety director told us. "Top management has to assume active leadership."

If you're just establishing a safety program, write a

continued on page 59



More than 350 safety directors helped us answer the question . . .

Safety Man: Engineer or Educator?

WHAT IS the safety man's primary qualification—engineering know-how or the ability to teach the need for working safely?

Wherever safety men gather, you can quickly dispel any conversational lull by asking that question. In fact, you'll be lucky during the next couple of hours to get a word in edgewise.

In an OCCUPATIONAL HAZARDS survey made in April, we asked the question of 350 safety directors. Responses showed that 94 percent believed the ability to communicate is primary. Only 3 percent chose engineering know-how.

The remaining 3 percent nibbled at the question, couldn't choose between the two qualifications. One of the most articulate spokesmen for this on-the-fence group was Jim Woodley, insurance and safety administrator, Magnet Coup Barium Corp., Houston. He told us:

"It's impossible to separate the two qualifications. A good basis in the physical sciences (engineering) is absolutely necessary to recognize and correct unsafe conditions. On the other hand, lack of ability to communicate would seriously handicap the capable engineer. They are of equal importance."

While Mr. Woodley doubtless has a point, it is generally recognized that some of those most skilled in persuasion do not excel in engineering and vice versa.

B. L. Sheridan, safety engineer for the U.S. Army Engineer District, Walla Walla, Wash., put his finger on this.

"Regardless of technical knowledge," he said, "it is necessary to communicate. Many fine engineers are not able to convert their knowledge into terms understandable to the layman."

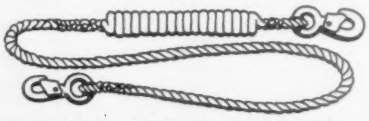
From Los Angeles, A. R. Bowles, safety engineer, Texaco, Inc., nodded accord to the Sheridan view and told why:

continued on next page

DON'T find out by accident

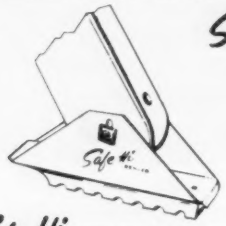
In safety equipment, second best just won't do!

Get the *facts* on the safety equipment you need. For 29 years, the Rose Manufacturing Company has been designing, testing, and manufacturing the finest safety equipment in its field.



Safe-Hi UNOLYN COIL SHOCK ABSORBER AND LANYARD

The Safe-Hi Unolyn Shock Absorber and Lanyard are safe two ways! A 50-inch length of Nylon Lanyard is coiled around a 10-inch length of Unolyn. After the Unolyn has stopped the fall and absorbed the shock, the Nylon lanyard retains full strength and safety. Unolyn s-t-r-e-t-c-h-e-s to 5 times its own length—one pound of Unolyn absorbs up to 25,000 foot-pounds of kinetic energy—to guard against broken ropes, anchors, belts and broken men due to impact in stopping falls!

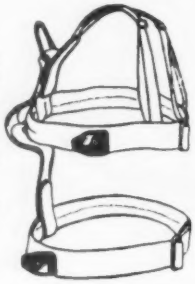


Safe-Hi LADDER SHOES

Safe-Hi Ladder Shoes hold on all surfaces because they combine fibre and neoprene in the tread. This combination holds any ladder safely on wet, dry or slippery surface. The self-sharpening steel spike flips down for ice or snow.

Listed by Underwriters Laboratories for all surfaces. Also available in spark-resistant metals.

Safe-Hi CHEST-WAIST BELT



The Safe-Hi "Chest-Waist" belt is the *safest* belt made for workmen in high places, because it *divides* the shock load to two separate areas of the body—the chest and the waist. It also assures proper adjustment; the shoulder-supported chest belt can be worn loose for comfort, but the un-supported waist belt must be *worn* snug, thus preventing the fatal "slip-out" accident in a fall.

Other Safe-Hi Safety Belts include Car Dropper's Belt, Grab Belt, Heavy-Duty Construction Worker's Belt and Window Cleaner Belt.

Safe-Hi AUTO SEAT BELT

The "all nylon" Safe-Hi Auto Seat Belt has been safety-engineered to reduce crippling injuries and deaths resulting from highway accidents. The entire belt assembly, including the floor hardware, test far beyond C.A.A. rated strength for airplane seat belts! The 2-inch-wide webbing is 100% nylon, shock-absorbing, very long wearing and easily kept clean. It is light and comfortable to wear, and can be instantly adjusted or released. The Safe-Hi Auto Seat Belt will fit any person, any seat and any car or truck.

Safe-Hi Seat Belts meet or exceed U.S. Gov't specifications.

OTHER SAFE-HI PRODUCTS

Other Safe-Hi Products include the Safe-Hi Ladder Climber, Chisel Grip, Rope Grab Shock Absorber, Ladder Lash Pole Grip, Wall Grip and Adjustable Bo'suns Swing.

You're sure you've got the best with

rose Safe-Hi **manufacturing co.**

R9-1

2700 W. BARBERRY PLACE • DENVER, COLORADO

Circle No. 29 on reader service card

Engineer or Educator?

continued from page 37

"As safety has developed through the years," he said, "manufacturing, construction, layout, and design [people] have been forced to adopt safety due to established and/or recommended standards, legislation, and industrial relations requirements. Because of this, we find most industrial facilities today equipped with practically all the safety features that can be developed through engineering know-how.

"While this engineering know-how will always be developing and going through processes of revision, the greater need for safety promotion is influencing the worker to perform his duties safely."

No slide rule for minds

Among other noteworthy comments from those who lined up with the majority to favor the educator over the engineer:

"The safety engineer who is unable to communicate with his people in an effective manner cannot sell or convince them of the value of safety. [Engineering] know-how is valuable; however, without effective communications, [it] is of limited use."—P. Ruga, safety director, Kimble Glass Co., Vineland, N. J.

"It is important that a safety supervisor have knowledge of engineering, but no one has ever designed a slide rule that will solve the problems of the human mind."—J. W. Jones, safety supervisor, Mountain Fuel Supply Co., Rock Springs, Wyo.

"In my opinion, most injuries occur because someone does not realize the danger or doesn't think safely. The main job of any safety director is to get people to think in terms of safety all the time."—Don D. Rice, superintendent, Wennonah Cotton Mills Co., Lexington, N. C.

Engineering the big E

A West Coast industrial hygienist differed with the majority, selected engineering as the safety man's primary qualification.

"Communication is OK," he said,

continued on page 40

FIREMEN are prepared to move right in on dangerous valve fires when wearing entry suits of "Scotch·Shield" Aluminized Fabric.

PIPELINE SWITCHERS are protected against possible "hot spot" accidents by working in "Scotch·Shield" Fabric proximity suits.

SAFETY MEN Bob Jewell and John Hogan believe in and practice maximum protection for SOHIO Refinery personnel at all times.

At SOHIO's Lima Refinery...

"Hot spot" men work safer in SCOTCH·SHIELD suits

ALUMINIZED FABRIC

"We believe in maximum protection against accidents—before they happen," says Safety Director John Hogan of the Standard Oil Company Refinery at Lima, Ohio.

"That's why all our maintenance men are required to wear aluminized fabric suits when working on steam pipes and around other hot spots. The same goes for pipeline switchers."

"In the event of a valve fire," says Asst. Safety Director Bob Jewell, "our fire brigade is prepared to move in fast. Their truck carries all the latest and best equipment, including fire entry suits of 'Scotch·Shield' Fabric."

REFLECTS 90% OF RADIANT HEAT. "Scotch·Shield" Aluminized Fabric for industry is asbestos or flameproof rayon, vapor-coated with pure aluminum to reflect almost all radiant heat. It is also highly resistant to sparks and metal splash. Garments of "Scotch·Shield" Fabric are lightweight, flexible, long-lived. They are available from leading safety clothing suppliers. For more information, write Dept. RCC-61, 3M Co., St. Paul 6, Minn.

SCOTCH·SHIELD®
BRAND
ALUMINIZED FABRIC

MINNESOTA MINING AND MANUFACTURING COMPANY
...WHERE RESEARCH IS THE KEY TO TOMORROW

Circle No. 30 on reader service card

14" HIGH

NEW!

HIGHEST-RATED, LOWEST-PRICED ($11.95 RETAIL) 2½ LB. DRY CHEMICAL EXTINGUISHER

Now – thanks to the new Kidde Kompact – here's high-power fire protection at a rock-bottom price! Highest-rated, lowest-priced 2½ lb. dry chemical extinguisher on the market, the new pressurized Kidde Kompact packs as much fire-killing power as extinguishers costing twice the price. Equal to eight one-quart carbon tet units, the new Kidde Kompact mounts snugly, works simply – just lift the handle and press the lever.

And . . . there's no recharging needed. Just unscrew the used cylinder, replace with another, only $3.95. At the low, low price of just $11.95, no one should be without a Kidde Kompact. U.L. and U.S.C.G.-approved. For more information, see your dealer or write Kidde today!

Kidde

Industrial and Marine Division

Walter Kidde & Company, Inc., 648 Main Street, Belleville 9, N. J.

Walter Kidde & Company of Canada Ltd., Montreal—Toronto—Vancouver

Circle No. 31 on reader service card

Engineer or Educator?

continued from page 38

"but the safety engineer has to have good [engineering] know-how basically or he will have nothing to communicate. Even without communication ability, engineering controls can do a great deal, but the converse is not true."

You can't know it all

Consistent with their view that the safety man should be primarily an educator, 96.8 percent of our respondents answered "Yes" when OCCUPATIONAL HAZARDS asked, "Should the safety director rely on his company's engineering department to provide answers for technical questions?"

In commenting on his answer, Samuel T. Logan, safety engineer, U. S. Army Corps of Engineers, Vicksburg, Miss., told us:

"Safety is so wide a field, and modern industrial and construction operations so diverse, it is impossible for one man to know it all."

Check both groups

About a third of the safety men qualified their affirmative answers. Here are some sample comments:

"[The engineering department] would appear the primary resource, but answers should routinely be cross-checked against other sources (government agencies, etc.) to appraise intelligently the quality of company engineering efforts in the safety field."—Paul Palmer, personnel and safety manager, Norton Laboratories, Inc., Lockport, N. Y.

"This should be a cooperative function [of] the safety and engineering departments." — John Kovach, Sr., safety supervisor, Intermountain Chemical Co., Green River, Wyo.

"In some cases, [the safety director should rely on his company's engineering department], but at the same time, he also should have considerable knowledge through proper training."—H. E. Rawlings, senior safety engineer, Ryan Aeronautical Co., Aerospace Division, San Diego.

• •

ONLY AO DURASAFE COMBINES:

7-barrel hinge—40% stronger at temple's most vulnerable spot.
Duragrip screw construction—screws cannot fall out, temples stay tight.
Sturdy frames—extra strong, engineered for industrial use and exposure.
Wider temples, endpieces—strong, more comfortable, better appearance.
Cool side shields—nonreflecting wire mesh.
Easy to identify—AO monogram on frames and lenses identifies Durasafe at a glance.

TAKE YOUR CHOICE OF

Solid colors
Smoke (F9800SM)
Mahogany (F9800M)
Pink Crystal (F9800PC)

Two-tones
Smoke on Crystal (F9800SC)
Mahogany on Crystal (F9800MC)
Black on Crystal (F9800BC)

Temples
Plastic comfort cable
Metal core plastic spatula
Aluminum with plastic tip

Full range, bridge & eye sizes
Safety Rx or plano lenses
With or without side shields

...the glasses workers wear willingly

Your plant eye protection program's *full* effectiveness is governed by the workers' willingness to wear safety glasses (or goggles) regularly. In the new Durasafe, you have fitting qualities and a choice of colors and combinations that satisfy everyone . . . combined with the latest safety features that mean maximum protection and durability.

This wearer acceptance can be a big factor in preventing costly eye injuries. For the new Durasafe will protect against 80% of the eye hazards in an average industrial plant with a full eye protection program.* For full information on the glasses workers *want and will wear*, call your AO Safety Products Representative, or write for Bulletin S-1013.

*Other types of AO safety goggles are needed to cover special hazards.

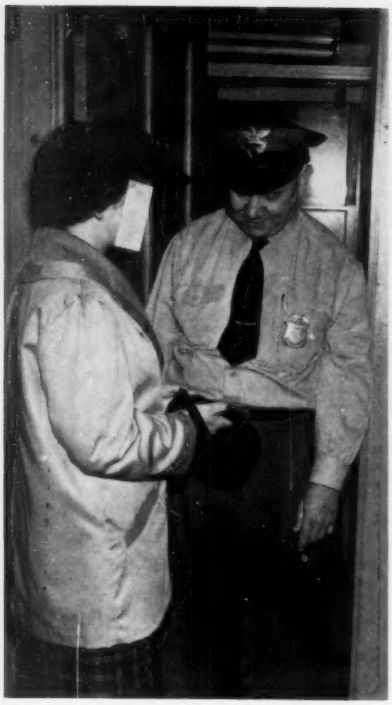
Your Surest Protection . . . AO SURE-GUARD Glasses

American Optical
COMPANY

SAFETY PRODUCTS DIVISION • SOUTHBRIDGE, MASSACHUSETTS

Circle No. 32 on reader service card

Security experts appraise four key points in



1. PILFERAGE. A guard inspects a woman worker's purse as she leaves the plant.

2. PERIMETER. Fencing must be high enough, its gage thick enough, to help prevent illegal entry to plant grounds.

Here's How the Old Pros

PLANT SECURITY, like military preparedness, can be a tricky thing to appraise. First, you must analyze your enemy's strength. Fire, theft, vandalism are in his arsenal. To combat them, you need an alert, well-organized guard force, strategically located fences, strong locks, and sensitive automatic alarm devices.

And as with military preparedness, there's the ever-present temptation after a casual look at your defenses to take great comfort from them. You leave yourself wide open if you do.

Professional security people will quickly strip you of that dangerous complacency. Their trained eyes spot potential dangers, weak spots in defenses. We know, We've gone over survey reports prepared by a firm which offers industrial security service. The reports were a real eye-opener.

Begin on the outer edge; work in

Here's a sample of one such survey, compiled for a brandnew midwestern plant.

Appraisal of outdoor security focused first on the fence surrounding the plant. The company had one of strong gage and sufficient height. However, the survey report noted that "where the fence extends behind Building No. 4, it is far too close to the building. This makes the building act as a shield if a potential intruder were to attempt entry at this point."

Even weed killer improves security

The report recommended:

► Interlaced barbed wire be strung from the southwest and northwest corners of the building to the fence.

► Where dirt under the plant fence was soft, steel stakes be pounded into the ground at 8-inch intervals to guard against the possibility that intruders would tunnel under it.

► Clear zones be established, 20 feet in front of the fence and at least 50 feet behind it. Use weed killer to rid the area of unwanted vegetation.

The main gate, used by all employees and visitors was on one side of the guardhouse. On the other side

their survey of a midwestern manufacturing plant

3. LOCKS. Dead-bolt tumbler locks and locks with removable cores provide the best protection.

4. GATES. Security men confer on how well a plant gate guards company grounds after working hours.

Look at Plant Security

was a large truck gate. The railroad gate was at the extreme northwest corner of the plant perimeter. There were two other gates along the eastern edge of the plant property.

Every man on the guard force, the survey reported, should have keys to these gates. Whenever a gate was open, a guard should be there.

At several places, telephone poles were so close to the fence they could be used as ladders to enter plant grounds. Metal guards on the poles at a level slightly below the top of the fence would help prevent trespassing. This type of guard padlocks in place. It can be removed when utility men service the phone lines.

"No Parking" signs should be on the inside of the fence. Whatever parking is allowed near the fence should be outside.

Make sure your locks are good

Too many doors in the plant had knob-locking devices, probably the easiest type of lock to open. Knob locks were even on vault doors.

Dead-bolt or jimmie-proof pin tumbler locks of 6- or 7-tumbler design would improve vault security. Better yet, the survey recommended, install locks with removable cores. They permit you to change keying in seconds, a very important feature in the event a key is lost or stolen.

There should be an alarm system in the vault. An ultrasonic alarm would flash warning on the master control board in the guardhouse; yet because it would not be audible, it would not warn the trespasser.

Good lighting is imperative

Protective lighting should run along the edge of plant property: 500-watt standard street light lamps placed 12 to 15 feet inside the fence at 200-foot intervals. It would help deter illegal entry. Each bulb should be about 30 feet from ground level and tilted 20 to 30 degrees toward the fence.

All workers should have identification badges, containing their photographs and a few vital statistics.

continued on next page

continued from preceding page

Visitors should sign in and out on a standard register form. They, too, should wear badges, different from those worn by employees.

New guard needed for eight jobs

At the time of the survey, the plant was employing one guard on each shift, 7 days a week. The security service firm that made the survey looked ahead to full-scale operations. The plant was advised to hire another guard to:

- ▶ Control dressing rooms at the end and beginning of each shift.
- ▶ Control all gates, other than the main one, during first shift operations.
- ▶ Walk clock rounds hourly on second and third shifts and on all three shifts Sundays and holidays.
- ▶ Patrol certain assigned areas on the first shift.
- ▶ Relieve the guard at the main gate when required.

In its manufacturing processes, this company dealt with precious metals. Workers who had access to these metals during the working day had to take off their working clothes in one dressing room, pass a guard, then put on street clothes in another dressing room. The survey indicated this system would be strengthened if guards thoroughly examined all lunch pails as the men left the dressing rooms.

Workers who did not have access to precious metals, the survey reported, should open lunch boxes for inspection as they left at the main gate. Workers should not be allowed to take packages in or out of the plant.

Trash disposal methods also came under scrutiny. Workers loaded trash on a truck, took it to the dump for burning. The security services firm recommend that a guard thoroughly examine all loads of trash before they were taken from company grounds.

The survey concluded by outlining a tour of duty for guards. • •

Don't Neglect These Faces of Security

Security is a many-splendored thing. It has a lot of faces. Many of these faces suffer from neglect. For example:

- ▶ Do you have unexplained production slowdowns, occasional equipment breakdowns or small fires that leave you up in the air about their cause?
- ▶ Are workers in some departments strangely restless, given to low-voiced talk among themselves, suddenly resentful of company rules, inclined to disregard instructions?
- ▶ Does a good deal of what seems like deliberate waste of time and materials trouble some production areas?

If your answer to any of these questions is "Yes," you may have a troublemaker in your plant.

Some men seem to glory in making life miserable for foremen and managers, while outwardly they polish apples with the enthusiasm of an orchard owner who prepares his fruit for the mail-order market.

Other workers—and they don't have to be Communists—may have been planted in your company to make trouble, stir up labor-management difficulties, stall deliveries.

Or you may have someone on the payroll who covers up his "mad" at your company or at one of your supervisors while he tries to get even for a baseless grievance.

Often, a departmental foreman or a personnel manager can't run down the troublemaker. He has neither the training nor the time to do so. So the difficulties the malcontent causes pile up and up like coal dumped on a utility's fuel yard.

On the surface, the trouble your malcontent makes may not look serious. But, like any wound allowed to fester, the results of what he does can lead to disaster: bad breaks in previously good labor relations, temporary closedowns, angered customers and lost business, heavy repair or equipment replacement costs.

You have, in a case like this, a job for special security forces. Ordinary plant guards may not be enough to find out what's disturbing your people and your business.

Big railroads have their own thoroughly trained detectives. Insurance companies use undercover men to unearth fraudulent claims. Most factories can't draw on this kind of talent except from one source—the private investigation agencies that contract, on an annual or on a one-job basis, to furnish competent detective service.

A good agency will work as quietly as a 21-jewel watch. No one except your highest brass will know agency people are in your plant, unless you wish it. Agency reports will be more confidential than the results of your own laboratory research program. And what agency investigators do may not only "finger" the troublemaker, but bring to light unexpected breaches in your security wall. • •

Credit where credit is due: Photos and factual background for these two articles on industrial security came from William J. Burns International Detective Agency, Inc.; Lockheed Aircraft Corp.; Phillips Petroleum Corp.; and Pinkerton's National Detective Agency, Inc.

Circle No. 34 on reader service card

Babbitt *Adjustable* **SPROCKET RIM**
with Chain Guide
CHANGES THAT DANGER ZONE TO A SAFETY ZONE

— cuts costs when you
SIMPLIFY PIPE LAYOUT

When you modernize to make money, go all the way. Cut piping costs to minimum with planned simplification. Give your staff a free hand to effect economies—at the same time, convert Danger Zones to Safety Zones. Equip every overhead valve wheel in your plant with Babbitt Adjustable Sprocket Rims with Chain Guides.

- They simplify pipe layout.
- They fit any size valve wheel.
- They are easy to install and operate.
- They operate any valve from the floor.
- They save time and money.
- The first cost is the only cost (no maintenance).
- They are packed completely assembled (one to a carton), with easy-to-follow instructions.
- A hot-galvanized rust proof chain is available for all sizes.

Babbitt Adjustable Sprocket Rims with Chain Guide are carried in stock by most mill supply houses. Just phone your mill supply salesman, or contact us direct.

Babbitt STEAM SPECIALTY CO.
12 BABBITT SQUARE, NEW BEDFORD, MASS., U.S.A.

Seiberling
INDUSTRIAL GLOVES

Longer wear in every pair! Available in various sizes, gauges, lengths, colors and surface finishes. Natural rubber or genuine Dupont neoprene latex. Contoured fingers for more comfort, better fit.

EXCLUSIVE PATENTED
FIRMGRIP®
SAFETY GRIP MOULDED INTO FINGERS AND PALM

SEND FOR CATALOG NO. G-5 of complete glove line

FREE TEST OFFER!
Write us on your firm's letterhead for sample gloves for test purposes.

SEIBERLING LATEX PRODUCTS
New Bremen, Ohio

Circle No. 35 on reader service card

HILD

LISTED UNDER REEXAMINATION SERVICE UL OF UNDERWRITERS' LABORATORIES, INC.

EXPLOSION PROOF CLEANING EQUIPMENT

MODEL 330

THE ONLY COMPLETE LINE OF EXPLOSION PROOF VACUUM CLEANERS FOR SAFETY CLEANING

MODEL 355

Every size from 6 to 55 gallon capacity for all types of wet and dry pickup in hazardous areas. Excellent for cleaning chemical and petroleum storage tanks, grain mills, gunpowder plants, etc. Every machine UL Listed for Class 1, Group D and Class 2, Group G location.

MODEL 315

THE HILD FLOOR MACHINE COMPANY ALSO MANUFACTURES A COMPLETE LINE OF INDUSTRIAL VACUUM CLEANERS AND FLOOR MACHINES FOR EVERY CLEANING OPERATION.

MODEL 306

THE FIRST UL LISTED EXPLOSION PROOF FLOOR MACHINE

MODEL CXS

Versatile polishing and scrubbing machine for gas pumping stations, food manufacturers, candy plants and other hazardous areas. Complete Unit UL Listed.

HILD FLOOR MACHINE CO., INC. Dept. OH-6
1217 W. Washington Blvd., Chicago 7, Ill.

Gentlemen:

☐ Send more information on explosion proof cleaning equipment.
☐ Send more information on the complete Hild line.

Name_____
Firm_____
Address_____
City_____ Zone____ State_____

Circle No. 33 on reader service card

Circle No. 37 on reader service card

ALLSAFE
FAN GUARD

Prevents personal injury from contact with fan blades

• Protects entire fan • Easily installed and laundered • No interference with air movement • Made from cotton woven mesh • Lightweight, gray • Special sizes are available

SPECIFICATIONS

Fan Diameter	Price Per Dozen	Price Each
8"	$16.00	$2.05
10"	16.50	2.15
12"	24.25	2.40
14"	25.85	3.05
16"	27.35	3.70
18"	28.80	4.05
20"	32.75	4.20
24"	34.60	4.35
25"	39.35	4.70
28"	49.70	5.05
30"	52.00	5.35
34"	59.25	5.70

Mail your order to

AMERICAN ALLSAFE CO., INC.
1245 Niagara St. TT 3-8300 Buffalo 13, N. Y.

Careless Smoking is a Universal Problem!

SIPCO
DUNKING STATIONS

Promote Good Housekeeping
Prevent Fire Hazards
Reduce Maintenance

Model 4J-R Duo-Tone With R-G Sign

WHEREVER A SMOKING PROBLEM EXISTS, THERE IS A SIPCO MODEL THAT EXACTLY FITS THE NEED.

SIPCO smokers are constructed of heavy-duty cast aluminum — Built for a lifetime of hard use. OVER 20 DIFFERENT MODELS, include MIDGET size, STANDARD size and JUMBO size. WALL models, FLOOR STAND models and PERMANENT MOUNTING models. DELUXE bright polished finish — or DUO-TONE finish (Grey crinkle canister with satin finished lid.)

Model 4J Deluxe

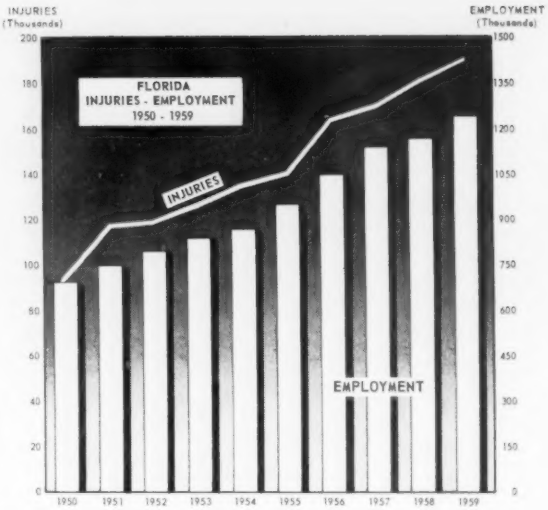
MODEL 4J DELUXE (Illustrated) JUMBO size permanent mounting type with bright polished DELUXE finish. Glass fiber inner-liner is furnished.

MODEL 4J-R DUO-TONE (Illustrated) JUMBO size permanent mounting type, with sign. Wide variety of sign wording available. Glass fiber inner-liner furnished.

WRITE FOR ILLUSTRATED BROCHURES

STANDARD INDUSTRIAL PRODUCTS CO.
DEPT. M • 3527 FARMINGTON RD. • PEORIA, ILLINOIS

Circle No. 36 on reader service card



WORK INJURIES in Florida jumped an average of 10 percent a year during the 1950's, although employment in the State increased only 8 percent a year.

Will Injury Rates Outrun Employment?

THAT OLD bugaboo of World War II rears its ugly head again: *When employment skyrockets, the injury rate goes up even faster.*

The statistical department of the Florida Industrial Commission recently reported that, while injuries and employment in the State both increased during the 1950's, the rate of increase for injuries was greater than that for employment.

The department considered all work injuries reported to the commission, whether or not they involved lost time. The question was, Did the injuries require medical attention? Employment figures included all those estimated to be subject to the workmen's compensation act.

Statistics so far gathered for last year suggest the difference between the injury and the employment rate in the State still is widening. Between January and October 1960, there were 3.63 injuries reported for every 1,000 employees. In October, there were 3.67.

Florida some time ago started an intensive drive on industrial injuries, set up a safety training program for foremen, stiffened its safety codes, stepped up code enforcement.

In view of all this, it seems likely that the new workers who flooded Florida industry have been too much for safety-minded supervisors to handle—or that not enough attention has been given safety training.

If you're taking on many new employees, watch out for the same situation. What can happen in Florida can happen elsewhere, too. • •

RIGHT OFF THE DOCKET

Court decisions in disputed compensation cases

What's serious misconduct?

DENNIS HENRY was a laborer on the Keeley Rice Farm. On October 15, 1957, a machine became clogged with rice. His foreman ordered Henry to pull the rice from the auger with his bare hands to unclog the machine. It was obvious Henry would be injured if someone started the machine while his hand was inside.

The foremen left Henry, and attended to other work. The machine suddenly started. Henry was hurt. It turned out the foreman himself had started the machine, thinking Henry was not there any more. It was not possible to see Henry from the machine operator's seat.

There was no argument over granting benefits. However, under California law, additional benefits are payable if the employee is injured as a result of "serious and willful" misconduct of the employer.

The court held the actions of a foreman are those of the employer. If a foreman places an employee in an extremely dangerous position without taking any precautions to insure his safety, this constitutes "serious and willful" misconduct. The injury need not be intentional.

Claim allowed for additional benefits.

Keeley v. *Industrial Accident Commission:* Supreme Court of California, 359 P. 2d 34 (January 31, 1961).

Would this apply to plant guards?

DONALD KING, a police officer for Clinton, Mo., was shot when his service revolver accidentally discharged in its holster. King was subject to 24-hour call and at the time of the accident was in his uniform on his back porch, getting ready to go to work.

His employer contended King was not yet at work, and, therefore, his claim was not covered. King argued he was subject to call at all times and on his way to work wearing a uniform and a gun he was *required* to wear.

The court laid down a clear, concise rule to govern workmen's compensation cases: *If the employee was performing a duty incident to his employment, at a time connected with his employment, and was at a place where he could reasonably be expected to be for his employment, when he was hurt, then his claim would be covered.*

The court said King was required to wear a uniform and gun, but the city provided no place for him to change clothes. Therefore, when King followed express orders to wear the gun and dressed himself in uniform at home, he met the requirements of the test, even though he had not yet reported to work.

Claim allowed.

King v. *City of Clinton:* Missouri Court of Appeals, 343 S.W. 2d 185 (February 6, 1961).

Partners aren't worth compensating?

JAMES RYDER and his son formed a business as a "trust." They were the trustees, as well as the beneficiaries. They applied to an insurance company for workmen's compensation insurance, and specifically instructed the company that they wanted insurance *only* if James would be covered. The insurance policy was issued.

James was injured on the job, and claimed benefits. He argued he was an employee of the trust and therefore entitled to recover for his injury. Further, he said, it would be unjust to allow the insurer to avoid payment in view of the fact it accepted premiums under the representation that James would be covered.

The court held that James was not an employee of the trust. In fact, the trust was only a name. This was really a partnership, and the law excludes partners from benefits. The court stated that the name given to an association has very little significance, and its true nature is the controlling factor. The court could not honor the insurance company's statement that James would be covered. He would have to sue the insurer for misrepresentation to argue that point.

Claim denied.

Ryder's Case: Supreme Judicial Court of Massachusetts, 171 N.E. 2d 475 (January 12, 1961).

Nothing like a new viewpoint

A NEW JERSEY court has come up with a remarkable decision. Will it set a trend for dealing with freelance workers and mixed employers?

George Gross was a freelance jockey. He rode many different horses from many different stables. While racing one day, Gross was injured. He filed a claim for workmen's compensation, naming his trainer and the owner of the horse as his employers. The only questions to be decided were whether he was an employee, and if so, whose employee.

The court ruled that even though the horse's owner

continued on next page

GOJER, INC. Announces Its

"STOP WASTE PROGRAM"

CARELESS WASH-UP PROCEDURES ARE COSTING YOU MONEY!

A pair of dirty hands with free access to an open can of soap may well be the reason your company handcleaning bill is such a costly item. Provide an effective way of controlling the amount of soap being wasted by your employees, and you'll prevent the greatest part of your handcleaning dollar from being washed down the drain.

GO-JO'S HEAVY DUTY DISPENSER CONTROLS WASH-UPS... SAVES YOU MONEY!

Designed to eliminate waste, the Go-Jo Heavy Duty Dispenser delivers just the right amount of Go-Jo to get even the grimiest hands spotlessly clean. Go-Jo Creme Hand Cleaner is a concentrated formula containing GT-7 for dermatitis protection, plus soothing emollients to prevent chapping. When used in the Heavy Duty Dispenser, it provides four times as many clean-ups as "hand scoop" methods.

Pat. No. RE. 24312

The Gojer representative serving your area will be happy to show you how to cut as much as 75% off your handcleaning expenditures. Write us today.

2612

GOJER, INC.
Box 991 Akron 9, Ohio
MANUFACTURERS OF go-jo PRODUCTS

Circle No. 38 on reader service card

Right Off the Docket

continued from page 47

had the financial interest, and even though he wanted a jockey to ride his horse, it was the *trainer* who had the right to hire and fire the jockeys and had the right to instruct and control them. Gross was a free lance. The court found that he was an employee of the trainer.

Claim allowed.

Gross v. *Pellecani:* New Jersey County Court, 167 A. 2d 838 (January 24, 1961).

Special employee hired injured helper

AMERICAN RED BALL TRANSIT CO., an interstate trucking company, rented equipment and drivers from Fleming Transfer. On one of these units, Red Ball acquired a driver named Hill. Hill picked up household goods in Alabama, transferred them to Louisiana, then to New Mexico, and finally to Denver. Upon arrival in Denver, Hill engaged Bernard Hopkins to help him unload the truck. Hill paid Hopkins in cash. While they were unloading the truck, Hopkins was injured.

Red Ball maintained it had no connection with Hopkins. Hill it said, was not its employee, but Fleming's. If Hill hired someone else, he certainly couldn't make him Red Ball's employee.

The court held Hill was a "special employee" of Red Ball, and had the authority to hire helpers. When he hired Hopkins to help him, he made Hopkins an employee of Red Ball.

Claim allowed, against American Red Ball Transit Co.

American Red Ball Transit Co. v. *Industrial Commission:* Supreme Court of Colorado, 359 P.2d 1018 (February 27, 1961).

Be careful what you say!

THE MISSISSIPPI Supreme Court recently ruled that factors totally unrelated to an injury may determine whether it falls under the workmen's compensation act.

Alphonse Parker, an employee of the United Gas Corp., suffered a ruptured disc. At the hearing, the only question was, Did the injury arise out of and as a result of his employment?

Parker's employer introduced into evidence a claim application Parker submitted to an insurance company with which he carried a sickness and accident policy. This policy paid *only* if the injury was not work-connected. In his application, Parker stated his injury was not work-connected. He received $112.50 per month under the policy.

The court paid little heed to Parker's arguments and evidence that his injury was, in fact, work-connected. It said, in effect, that he couldn't burn the candle at both ends. Since he had stated in his claim application that the injury was not work-connected, the court held him to that.

Claim disallowed.

Parker v. *United Gas Corp.:* Supreme Court of Mississippi, 127 S.2d 438 (March 6, 1961).

found...a practical place for a first aid kit

visor first aid kit at your fingertips

NOT in the glove compartment...

NOT under luggage...NOT under the car seat

BUT WHERE YOU SEE IT...
WHEN YOU NEED IT...

To make first aid materials immediately accessible to drivers in case of emergency, equip your company's truck and car fleets with this new, highly practical No. 730 MSco visor first aid kit. Ideal, too, for special employee awards in your safety contests. Can be imprinted with your company name or other special insignia if desired. Ask your MSco distributor, or write for details.

CONTENTS For Complete First Aid:

- Assorted bandages
- Curad adhesive compress with Telfa
- Antiseptic swabs
- First aid for burns
- Triangular bandage
- Adhesive tape

(Special fills also available)

ADJUSTABLE

Fits all car and truck windshield visors

PAT. PEND.

exclusive with

Specialists in first aid

Medical Supply Company

DEPT. BC1, ROCKFORD, ILLINOIS

Circle No. 39 on reader service card

This Fire Fighter is . . .

READY FOR ACTION

His bunker coat's 3M Scotch-Shield aluminized fabric surface is flame-resistant. Reflects 90% of all radiant heat. Fabric itself is lightweight, flexible spun rayon. Design features include:

- ***Detachable inner liner.***
- ***Double shoulders and storm flap.***
- ***Knitwrists stitched into coat.***
- ***Leather-reinforced sleeve opening.***
- ***Dual closing coat.***

These coats have been tested and approved by the Armed Forces and by leading fire departments.

Order in small (40), medium (44) and large (48) sizes. Length, 40". Other lengths supplied on request.

Bunker pants have detachable inner liner, large back pockets with snap flaps, and an adjustable snap and buckle for improved fit. Dual closing affords maximum protection. Points of extra strain are rivet reinforced.

Large pants legs make them easy to put on and take off. Available in waist sizes 32-40. Thirty-inch inseam, with other lengths submitted on request. Order by specifying waist and inseam requirements.

Aluminized asbestos gloves, offering the finest protection obtainable from extreme heat, round out the fire fighter's costume.

Racine

GLOVE COMPANY, INC.

RIO, WISCONSIN

Safety Gloves and Apparel

FOR INDUSTRY

Circle No. 40 on reader service card

NEW PRODUCTS

Pictures and information here come from manufacturers, and represent their own assessment of their products and services. To obtain more details about any item, circle the correct number on the reader service card and mail the card to us. No postage needed.

Table saw guard

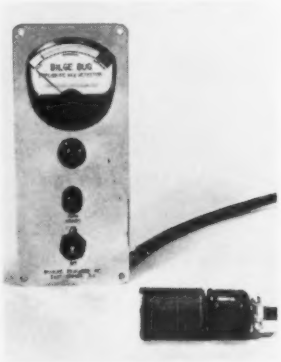
An extension plate has been devised by the Brett-Guard Co. to provide quick, easy movement of the Brett-Guard safety guard when used with

single or double arbored saws. This plate eliminates the need to remove the guard each time the blade is moved to a new position.

Circle No. 200 on reader service card

Explosive vapor detector

The Bilge Bug, Engelhard Industries, Inc., detects dangerous or explosive vapors aboard boats, in gasoline and fuel oil storage areas, and in other locations where combustible vapors may accumulate. Supplied for 6- or 12-volt direct current. Panel-mounted control and indicator, sensor

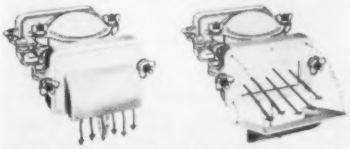


unit, and connecting cable assembly. Two platinum wire elements detect vapors within seconds and indicate air condition on meter.

Circle No. 201 on reader service card

Operating vents

Operating vents, product of the Protectoseal Co., insure horizontal



discharge of ignited vapors and prevent damage of tank structure. Ignited

Circle No. 41 on reader service card

vapors fuse the heat-sensitive alloy that secures the aluminum weatherhead to the vent body, allowing the weatherhead to fall free. The discharge immediately becomes horizontal. Connecting chain prevents loss of weatherhead.

Circle No. 202 on reader service card

Salt tablets

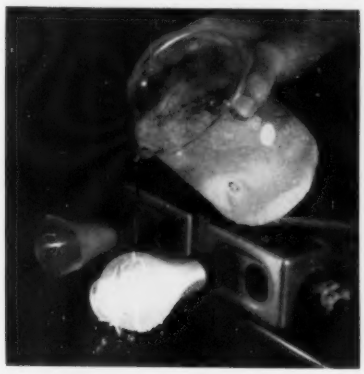
These impregnated, controlled-action tablets are now housed in plastic dispensers equipped with a special air-lock, which lock out moisture and fumes. Because the dispenser is trans-

parent, you always know just how much of a supply you have on hand. Get dispensers in 500- and 1,000-tablet sizes. When taken, MSco salt tablets dissolve gradually, well within the stomach's tolerance for salt.

Circle No. 203 on reader service card

Shatterproof bulb

As the photo shows, one drop of ice water caused the ordinary bulb to



explode. But a steady stream of ice water over the hot Flamescent bulb had no effect. The use of silicone adhesives and glass yarn by Duro-Test Corp. overcomes the hazards of exploding bulbs. It's glareless.

continued on next page

GLOBE

BREATHING POWER!

FOR COMMON & **UNCOMMON** BREATHING EMERGENCIES

This is the Seeler valve. Take it in your hand, operate it and see the difference between resuscitators.

Light to carry . . . easy to use . . . dependable in operation . . . long resuscitation time for difficult cases . . . THESE BENEFITS MAXIMIZE YOUR PATIENT'S CHANCES FOR RECOVERY IN AN ASPHYXIAL ACCIDENT. Globe/Seeler resuscitators give you the greatest capability in common and uncommon breathing emergencies.

Get Globe... for Life!

GLOBE

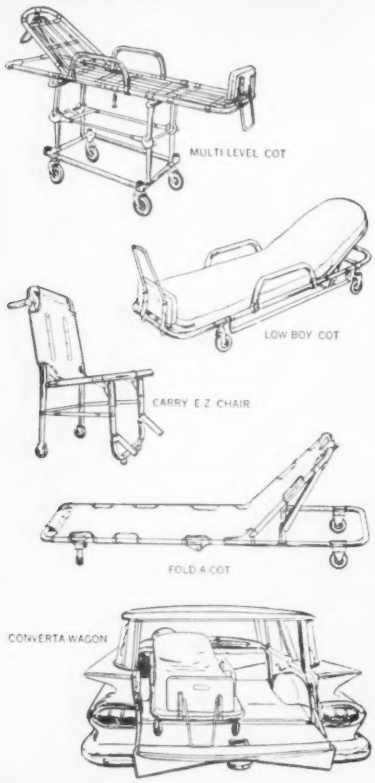
GLOBE INDUSTRIES, INC., 125 Sunrise Place, Dayton, Ohio

Distributors in all principal cities

Circle No. 42 on reader service card

Circle No. 43 on reader service card

since 1898 Bomgardner Mfg. Co. has been the world's leading producer of quality cots and stretchers



THE **Bomgardner**
MANUFACTURING CO.
P.O. BOX 567 EDGEWATER BRANCH
CLEVELAND 7, OHIO

NEW *Geerpres*
GRADUATED BUCKETS

Fast, easy, accurate mixing of mopping solutions, using large embossed numerals and reinforcing, gallon-indicating corrugations, is the newest improvement in Geerpres mopping buckets. Available in 4-, 8- and 11-gallon sizes with choice of single, twin or "Convertible" models.

Ask your Geerpres jobber or write today for free bulletin.

GEERPRES WRINGER, INC. P.O. BOX 658, MUSKEGON, MICHIGAN

Circle No. 44 on reader service card

New Products

continued from page 51

Recommended where there are flying sparks, welding slag, hot solder, or liquid spray.

Circle No. 204 on reader service card

Automatic emergency lighting

Plug the Lifesaver into any alternating current outlet. When regular power fails, this stand-by lighting unit automatically provides bright illumination with its two 5-inch lampheads.

Includes built-in voltmeter and momentary contact switch for testing the 7½-volt dry battery. Neon bulb glows when unit is plugged in. U-C-Lite Manufacturing Co. makes this low-cost unit.

Circle No. 205 on reader service card

Safety swing

Rose Manufacturing Co. Safety-Hi Bo's'n's swing offers safety and com-

fort to workers in high places. Its 6000-pound tensile strength nylon webbing used in risers and waist straps, along with a cotton body pad,

holds workers snugly and securely. Adjusts to fit any worker. With or without hardwood seat. Strap construction prevents seat from slipping.

Circle No. 206 on reader service card

Vacuum lifter

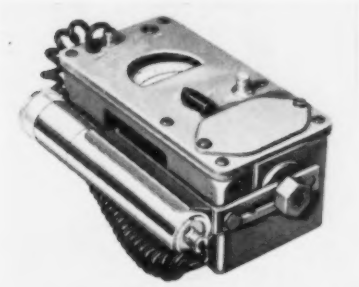
A light thumb pressure controls pickup and release. Strike the object to be lifted with the vacuum cup lift. Ideal for parts feeding or stock han-

dling. Produced by Stilson Tool, Inc., the extension tubing comes in 12-, 15-, and 18-inch lengths. Equipped with 2¼- and 3⅛-inch replaceable neoprene vacuum cups.

Circle No. 207 on reader service card

Radiation meter

The Victoreen Instrument Co.'s transistorized portable Geiger-Muel-



ier tube survey meter detects and measures soft beta and gamma radiation. Accuracy and energy dependence of Model EP271 is stated to be within 20 percent of true gamma intensity from 80,000 to 2 million electron volts. It meets military requirements for ruggedness, temperature, humidity, sand, shock, and vibration.

Circle No. 208 on reader service card

Noncode fire alarm

The Gamewell Co. announces the Flexalarm Century noncode fire alarm station. Shock- and vibration-resistant, this unit is for interior use. The single action of pulling the bull's-

eye lever forward transmits alarm. It continues to ring until reset. Die-cast aluminum finished in fire alarm red enamel.

Circle No. 209 on reader service card

Compact ambulance

Featuring a Mercedes-Benz 190 chassis, this compact ambulance is

offered by Ambulance Imports, Inc. Soundproofed interior and safety glass throughout. Lower portion of

continued on next page

GUARD YOUR FANS NOW
Protect Workers From Injury
with
SAF-T-FAN-GARD

GUARDS THE FRONT — GUARDS THE REAR

Designed for factories and institutions to protect personnel from bodily injury

This fan guard prevents hand, arm and head injuries. Made of strongly woven cotton mesh fabric, with one-quarter inch openings. It is washable, mildew proof, non static, and won't interfere with the normal flow of air. Cover protects back and sides of fan as well as the front.

Immediate delivery. Write to

ROCHESTER SAFETY EQUIPMENT COMPANY, INC.
83 - 85 HOWELL STREET — ROCHESTER 7, N. Y.

Circle No. 46 on reader service card

THE WHITE LINE
HI-VOLTAGE
LINEMEN'S GLOVES

ORIGINAL CURVED-HAND DESIGN

Natural form fit—a standard feature of the White Rubber Company's linemen's gloves and mittens.

TWO-COLOR GLOVES available in black-on-red or black-on-yellow. Contrast of color reveals depth of cuts and snags.

CONTOUR CUFF GLOVE with 2" cutaway . . . allows extra freedom of movement . . . prevents glove from slipping off . . . gives full elbow protection on 18" length gloves.

SUNLIGHT AND OZONE RESISTANCE greatly improved by latest technical advances.

GREATER GLOVE FLEXIBILITY reduces hand fatigue, provides best comfort for the lineman.

PERMANENTLY ETCHED NUMBERS that you specify for positive identification and accurate records at no extra cost.

LARGE ROLL reduces creepage current.

GLOVE INFLATOR available for thorough and accurate visual inspection.

PERSONAL SERVICE by factory representatives to help you with your testing equipment and procedures — at no obligation or cost.

CRIPPLED HAND GLOVES custom fit to any hand at no extra cost.

PHONE OR WRITE FOR DETAILS

WHITE RUBBER COMPANY
RAVENNA, OHIO

Circle No. 45 on reader service card

continued from page 53

all stretcher compartment windows is frosted, and full-width double doors are at the rear. Combinations in 1- or 2-stretcher ambulances are available. Wide range of professional equipment is optional.

Circle No. 210 on reader service card

Fire-resistant adhesive

Wood bonded with Alweld fire-resistant adhesive can be charred to the point of disintegration without breaking the adhesive bond. Ideal for bonding wooden arches and trusses, as well as other structures where wood must meet building code requirements for fire resistance. Allen Plastics Corp. has this product.

Circle No. 211 on reader service card

Snake bite kit accessory

Here's an accessory that helps the user maintain constant suction on the area bitten by a snake. This Medical Supply Co. device includes a flexible 15-inch surgical tube with suction cup

and adapter to fit on the pump of a standard Saunder's snake bite kit. It fits neatly in the first aid kit or in a double-belt pouch.

Circle No. 212 on reader service card

Aircraft fire extinguisher

This portable fire extinguisher has a lightweight steel cylinder and trigger-operated aluminum valve. Entire assembly weighs only 6½ pounds,

including a 2-pound charge of carbon dioxide. Approved by Underwriters' Laboratories, for Class B and C fires.

Circle No. 213 on reader service card

Burn treatment

Here's on-the-spot burn treatment from E. D. Bullard Co. ABT (after burn treatment) instantly soothes

severe burns or scalds. Bullard's double-unit first aid pack includes two

from

NOTIFIER...

a complete line of

Automatic Thermostats and Manual Stations

Console and cabinet equipment

DETECTION and NOTIFICATION devices

CONTROL equipment

ALARM devices

including Notifier's new

N-CO-BELL®

in all standard voltages, created with imagination, not imitation

N-CO-BELL's controlled stroke provides superior gong vibration producing a distinctive and arresting sound. Low amperage drain allows more bells per circuit.

and now, another first from Notifier!

NEW PLUG-IN UNITS (with 5 year Guarantee)

Eliminate tampering by untrained personnel with NOTIFIER'S *plug-in units*—the first in the field.
Remember—NOTIFIER has the most complete line of fire detection and notification devices, control equipment and alarm devices. They can develop a system for you regardless of the size or location of your operation.

NOTIFIER CORPORATION also manufactures

- Control Panels (498 Models)
- Proprietary Systems
- Auxiliary Control Relay Equipment
- Tripping Devices
- Annunciators
- Special Power Supplies
- Gate Valve Switches
- Post Indicator Valve Switches
- Pressure Switches
- Local Water Flow Alarm
- Signaling Units
- Thermostats
- Security Patrol Stations
- Manual Break Stations
- Coding Devices
- Bells (1,664 Models)
- Single Stroke Bells
- Polarized Bells
- Trickle Chargers

Attention qualified people: NOTIFIER CORPORATION is a fast growing concern. There's a bright future for you in selling, installing and servicing NOTIFIER systems. NOTIFIER also needs qualified engineers to work with architects and specifying engineers. If you're interested and feel you can qualify, write to

Refer to our catalogs

34A NO in Sweets' Architectural File

and

C6 NOT in Sweets' Plant Engineering File

NOTIFIER CORPORATION
3700 North 56th St. Lincoln, Nebraska

Circle No. 47 on reader service card

pocket-size aerosol bottles. Compact packaging means it can fit in a worker's pocket or tool box.

Circle No. 214 on reader service card

Radioactive dusts respirator

Willson Products introduces this respirator for protection against radioactive dusts, plutonium, beryl-

lium, and toxic dusts, mists, fumes, smokes, bacteria, and certain viruses. The R-520 super-filter is permanently sealed in clear plastic for easy inspection. Low breathing resistance, airtight seal.

Circle No. 215 on reader service card

Liquid lens cleaner

K-Lens-M Lens Cleaner and K-Lens-M Antifogging Liquid, produced by The Wilkins Co., now come in a

Boston Round polyethylene bottle. It eliminates the danger of breakage, greatly reduces weight.

Circle No. 216 on reader service card

Acoustical fire ceiling

Costing no more to install than ordinary plaster and metal lath, Armstrong Cork Co. Acoustical Fire Guard ceiling panels withstand tem-

peratures up to 2000°. Resting on metal grids, panels can be lifted out for access to concealed utilities. The mineral fiber panels continue to hold their shape even under intense heat.

Circle No. 217 on reader service card

Nonspark plugs, receptacles

The possibility that sparks will ignite an explosive atmosphere is prevented by Industriline plugs and receptacles. Inserting and turning the plug forms a sealed chamber. Only after you turn the plug is a circuit engaged or broken. Sparks from connecting and

continued on next page

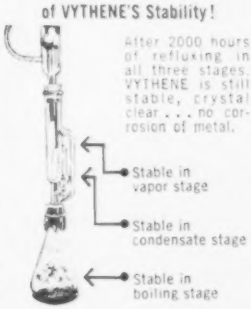
VYTHENE

Stabilized

1,1,1-Trichloroethane

Proved Safe and Effective For Cold Cleaning Applications! In its six years of service to many of the nation's leading industries, Vythene Safety Solvent has become a standard of safety and effectiveness in cold-cleaning applications. A stabilized 1,1,1-Trichloroethane, Vythene is a fast-evaporating, highly refined solvent of low toxicity — — threshold limit value, 20 times greater than carbon tetrachloride. Non-flammable and non-corrosive, *Vythene is available in 40 different modifications for specific applications.* Write for complete details, samples, and name of your nearest distributor.

Here's Dramatic Proof of VYTHENE'S Stability!



A Product of

TECT, INC.

Northvale, N. J.

Circle No. 48 on reader service card

Circle No. 49 on reader service card

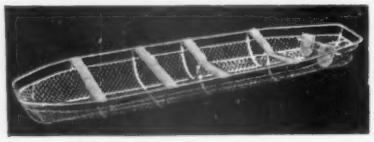
Convenient, Clean, Accessible!

Junkin

STRETCHER CASE & KIT

Junkin Stretcher cases provide a compact convenient place for storing the army type stretcher, blanket and first aid equipment. Protects from dirt and grime — saves valuable space. Available as kit or case only.

JUNKIN SPLINT-TYPE STRETCHER



Rigid construction. Patients may be carried vertically or horizontally, greatly reducing danger of moving from inaccessible locations. Canvas web-straps at chest, abdomen, thigh and calf, hold patient securely.

Send for descriptive literature.

Canadian Distributor: Lavitt Safety Ltd., Toronto

JUNKIN ENGINEERED SAFETY

JUNKIN SAFETY APPLIANCES
3121 Millers Lane, Louisville 16, Ky.

THERE'S A

Big Beam

FOR ANY NEED

Write for catalog

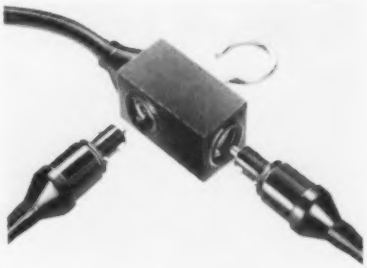
U-C-LITE MANUFACTURING CO.
1031 W. Hubbard Street, Chicago 22, Ill.
Canada: Bernard Marks & Co., Ltd., 32 Alcorn Ave., Toronto 7, Ont.

No finer hand lamps, flares and emergency lights made anywhere in the world

Circle No. 50 on reader service card

New Products

continued from page 55



disconnecting electrical systems are eliminated. Blocks of 4 and 6 receptacles are also available from J. B. Nottingham & Co.

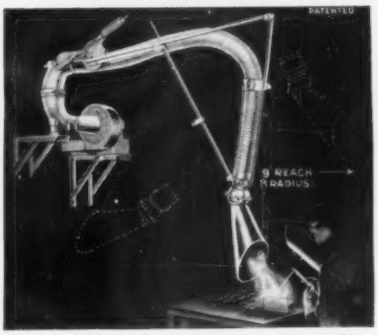
Circle No. 218 on reader service card

Sightgard eyewear

Designed by Mine Safety Appliances Co. for a wide variety of industrial applications. Provides high optical quality and impact strength in excess of Government specifications. Custom fitting is possible through a complete range of lenses, bridges, and temple sizes.

Circle No. 219 on reader service card

Remove Welding Fumes at the Source... with RUEMELIN FUME COLLECTOR



Welding shops equipped with Ruemelin Fume Collectors are assured of a clean shop atmosphere. Noxious fumes, heat and smoke are eliminated AT THEIR SOURCE. Improves working conditions . . . lessens fatigue . . . paves the way for increased plant production. Especially helpful in winter months when windows and doors are closed.

Note the new spring-loaded counterbalance mechanism which makes Fume Collectors much easier to handle.

WRITE FOR DETAILED INFORMATION

RUEMELIN MFG. CO.
3888 N. PALMER STREET • MILWAUKEE 12, WIS., U.S.A.
Mfrs. & Engineers • Sand Blast & Dust Collecting Equipment

Circle No. 99 on reader service card

Circle No. 52 on reader service card

MORNING PRIDE

versatile Army Duck

Fireman's Bunker Coat

MODEL 60

FREE LITERATURE AVAILABLE

See Your Local Dealer or Write

MORNING PRIDE MFG. CO.

1986 HOME AVE., DAYTON 17, O.

FAST, CONTINUED RELIEF OF SUNBURN PAIN

ANTISEPTIC-ANALGESIC

FOILLE®

LIQUID OR OINTMENT

FOILLE antiseptic-analgesic is a dependable, convenient, surgical-type dressing which has won wide use and acceptance by Doctors, Hospitals and Industrial Plant Clinics over a period of twenty years.

FOR

SUNBURN • BURNS • CUTS • ABRASIONS
LOCAL SKIN IRRITATIONS • INSECT BITES

CARBISULPHOIL COMPANY

2917 Swiss Ave. Dallas, Texas

You're invited to request literature and samples.

Circle No. 51 on reader service card

Sprinkler alarm cover

Molded of tough Tenite butyrate, Reliable Automatic Sprinkler Co.'s sprinkler alarm cover provides handsome, rugged shield for the loud gong

triggered when the automatic sprinkler goes off. It is weather-resistant, nonrusting, and chip-proof. The 14- by 4½-inch cover is lightweight. Paint it to match your building decor.

Circle No. 221 on reader service card

Self-contained fire alarm

When temperature indicates fire danger, Reddi-Eye automatic fire

alarm sounds a 12- to 15-minute blast heard for a half mile. This Standard Fire Alarm & Signal, Inc., device is activated by du Pont Freon—it requires no electricity or batteries. Glass eye monitor allows inspection of liquid Freon level to make sure unit is charged and ready for action.

Circle No. 222 on reader service card

New helmet standards

A technical committee of the International Organization for Standardization is trying to develop international standards for safety helmets used in industry and on highways.

Circle No. 100 on reader service card

NEW SINGER SAFETY SHIELD

In the plant or on the job

★ LIGHTWEIGHT ★ RUST-PROOF
★ LOW COST ★ FIRE-RESISTANT
★ ASSEMBLED OR TAKEN APART IN MINUTES WITHOUT TOOLS

Just think of it—no hooks, no bolts, no screws. Ideal for welding, grinding, machining etc. or can be used straight line as a protecting divider. Rust-proof steel frame with heavy fire-resistant duck curtain—attaches in seconds with with heavy duty snap fasteners.

In 4 standard sizes:
18" x 42", 36" x 48", 36" x 60", 36" x 72"

NEW BIG CATALOG

Describes screens in detail. Complete line of work gloves, welding gloves and safety clothing.

Ask your dealer or write:
Special Products Division

SINGER GLOVE MFG. CO.

860 W. WEED St., CHICAGO 22, ILL.

FILM BADGE MONITORING PROVIDES GREATER SAFETY IN RADIOGRAPHIC OPERATIONS

X-RAY MONITORING OFFERS THE FINEST FILM BADGE SERVICE EVER CREATED TO INCREASE THE SAFETY FACTOR FOR PERSONNEL WORKING IN NUCLEAR AND X-RAY OPERATIONS

ONE LOW SUBSCRIPTION FEE PAYS FOR ALL!

- Written Reports Within 24 Hours
- Cumulative Dosage Reports
- Maximum Protection
- Telephone Notice In Case Of Over-exposure
- Complete Peace-Of-Mind

For Further Information, Contact:

X-RAY MONITORING CORPORATION

43 West 61st Street • New York 23, N. Y.

Circle No. 53 on reader service card

with MISTI-MAZE
Electronic Precipitator

Here's the modern solution to localized plant air pollution problems! Compact Misti-Maze Precipitator can be installed near operation involved. Its new, improved design provides efficiency in a smaller unit. Air is cleaned and vented back into plant, eliminating loss of heated or cooled air. Coolants can be returned to machine for reuse. Easy to install . . . no special connections.

Install Misti-Maze For These Important Air Cleaning Benefits:

Lowers heating and cooling costs. Ideal for air conditioned plants. Avoids necessity for frequent cleaning of lighting fixtures.

Increased worker efficiency. Reduce absenteeism and improve output and quality of production through better operating conditions.

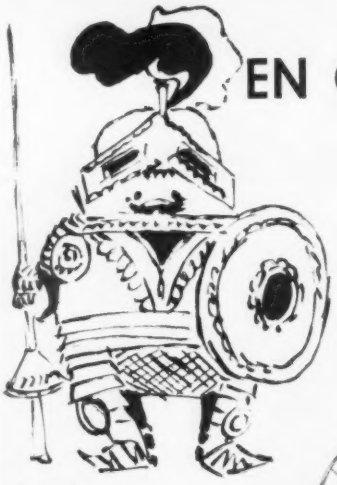
Reduces health hazards. Smoke particles, grease and irritants are removed from air.

***For full details,* write to Air-Maze Corporation, Cleveland 28, Ohio**

AIR-MAZE DIVISION
CLEVELAND 28, OHIO
ROCKWELL STANDARD
ROCKWELL-STANDARD CORPORATION

Circle No. 110 on reader service card

Circle No. 105 on reader service card



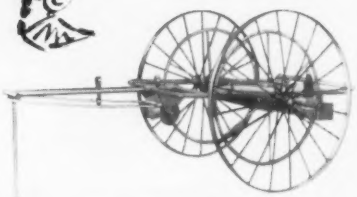
EN GARDE!

against FIRE

with

WIRT & KNOX
Fire Fighting
Equipment

Complete line
of
FIRE HOSE
CARTS



CONTINUOUS FLOW HOSE REELS
for all applications.

WIRT & KNOX MFG. CO.
23rd & York Sts.
Philadelphia 32, Pa.
write for details

HAND PROTECTION NEED NOT BE A WORRY..
PUT *National* ON THE JOB!

NAPA GOAT

Here is comfortable, easy to wear, complete hand protection that gives maximum flexibility and FIRM non-slip grip . . . and the natural lanolin in the Napa leather keeps hands in good condition. They're absolutely durable, water and oil repellent and ideally suited for all tough jobs! Comes in Band Top and Knit Wrist styles for both men (M-L) and women (S-M-L).

. . . *and the Buffer*

Pressure impregnated with tough vinyl plastic . . . gives you real economy — outwears regular canvas as much as 5 to 1 . . . Here is superior wearing quality — Available in both Slip-on (illustrated) and Knit Wrist styles.

Write for complete detailed information.

NATIONAL GLOVE, INC. COSHOCTON, OHIO
A Division of Pretty Products Inc. Coshocton, Ohio

Circle No. 55 on reader service card

Management: Cornerstone of Safety

continued from page 36

letter for the company president to sign. The letter should state how important the president regards safety, emphasize that every man in the plant accept his own safety responsibilities. Circulate the letter to all employees.

As often as you can, get an executive to attend safety meetings. Have him address the group, if only briefly, on the need for accident prevention.

From time to time, publish a statement from a company executive commenting on progress (or failure) in reducing accident frequency. Sometimes a statement should touch on the necessity for intensified fire prevention, the need for caution *off* the job.

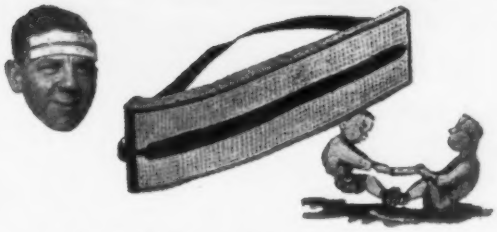
When management has repeatedly gone on record in favor of a strong safety program, tell your executives that plant conditions and equipment must reflect their words.

Management can't *talk* a good game while it maintains a death grip on the corporate purse strings whenever safety improvements are suggested. If it does, the word quickly spreads.

"When that happens," one oldtimer in the safety movement told us, "it would be better to be without management endorsement. Accident prevention suffers at the hands of loud-mouthed kidders, and progress toward greater safety is nearly impossible." • •

Be Cool, Man, Cool with...

DRYBROW



The Original Cellulose Sponge Sweatband
REINFORCED — WON'T SHRINK — LASTS LONGER

Drybrow offers

- Extra length to prevent perspiration from forming on the side of the head and trickling into eyes to blur vision.
- A one-piece, free floating, self-adjusting, all rubber headband.

Drybrow is not a throw away. It can be used and reused for weeks. Just dip in cool water and apply to forehead.

Send for your free sample.

AMERICAN ALLSAFE CO., INC.
1247 Niagara Street Dept. O Buffalo 13, New York

Circle No. 69 on reader service card

LEGSURE THE 1 POLISH...

for all your resilient floors

The proof is in the performance. Here's the "book" on LEGSURE as recorded by famous York Research Corporation in their own independent tests:

- **Slip-resistant**
- **Dirt repellent**
- **Spreads evenly**
- **Dries quickly**
- **Resists aging**
- **Scuff-resistant**
- **Water repellent**
- **Levels perfectly**
- **Has no tackiness**
- **Unaffected by heat or cold**

Self-polishing LEGSURE gleams like a new dime *with* or *without* buffing. Damp sweeping removes *all* the dirt; *none* of the shine.

Like we said, LEGSURE is the *one* Polish for all your resilient floors. Don't accept substitutes. There aren't any. See your authorized LEGGE representative or clip the coupon today.

certified slip-resistant — UL — continuing quality tested and approved — YORK

Walter G. LEGGE Company, Inc.
Dept. O-6, 101 Park Ave.,
New York 17, N. Y.

Branch offices in principal cities. In Toronto—J. W. Turner Co.

Send me a copy of the York Report and full information on Legsure.

Name_____
Firm_____
Address_____
City_____ Zone_____ State_____

Circle No. 56 on reader service card

Sudden Injury

Wide World photo

He cut off part of his own foot to free himself from the gears of a power shovel. A doctor who tried to help him couldn't get a scalpel far enough into the machinery to operate. The worker lost the rest of his foot in a hospital. Construction machinery should be as well guarded as equipment inside a plant, and guards should be left in place.

Reprints of "Sudden Injury" poster-pages (without these price lines) may be ordered: 1-19 copies, 15 cents each; 20-49 copies, 12 cents each; 50-99 copies, 10 cents each; 100-499 copies, 7 cents each; 500 or more 5 cents each. Please send payment with order.

14TH ANNUAL FIRE PROTECTION EQUIPMENT GUIDE

Directory of Companies

Advertisers in this issue are listed in bold face

A

Acme Industrial Police
812 Huron Rd., Cleveland 15, Ohio
Acme Protection Equipment Co.
1207 Kalamazoo St.
South Haven, Mich.
Robin W. Adair Co.
Avoca, N. Y.
Ad-O-Plastics
P. O. Box 474, Woodbridge, N. J.
Akron Brass Mfg. Co.
S. Spruce St., Wooster, Ohio
Albi Mfg. Co.
98 E. Main St., Rockville, Conn.
Alim Corp.
11 Park Place, New York 7, N. Y.
W. D. Allen Mfg. Co.
650 S. 25th Ave., Bellwood, Ill.
Aluminum Ladder Co.
W. Darlington St. Ext.
Florence, S. C.
American District Telegraph Co.
155 6th Ave., New York 13, N. Y.
American Emblem Co.
P. O. Box 116, Utica 1, N. Y.
American Fire Apparatus Co.
Golden Ave. & Main St.
Battle Creek, Mich.
American Fire Pump Co.
803 Main St. Rd., Battle Creek, Mich.
American Industrial Safety
Equipment Co.
3500 Lakeside Ave.
Cleveland 14, Ohio
American LaFrance
a division of Sterling Precision Corp.
60 E. LaFrance St., Elmira, N. Y.
American Optical Co.
Safety Products Div.
Southbridge, Mass.
American Rubber Mfg. Co.
1145 Park Ave., Oakland 8, Calif.
American Safety Tank Co.
3937 Main St., Kansas City 11, Mo.
Ampco Metal, Inc.
P. O. Box 2004, Milwaukee 1, Wis.
Ansul Chemical Co.
Fire Equipment Div.
1 Stanton St., Marinette, Wis.
Aquadyne Corp.
89 Terminal Ave., Clark, N. J.
Ardmore Products
Northbrook, Ill.
Armstrong Cork Co.
Lancaster, Pa.
Army's Fire Service
Old Forge, N. Y.
Atlas Safety Equipment Co.
173-179 N. 10th St., Brooklyn 11, N. Y.
Audio Equipment Co.
P. O. Box 192, Port Washington, N.Y.
Autocall Co.
Shelby, Ohio
Automatic Sprinkler Corp. of America
P. O. Box 360, Youngstown 1, Ohio
Automotive Conversion Corp.
2191 Cole St., Birmingham, Mich.
Award Incentives, Inc.
160 Jay St., Brooklyn 1, N. Y.

B

B & M Siren Mfg. Co.
763 E. Pico Blvd., Los Angeles 21, Cal.
Badger Fire Extinguisher Co.
Foot of Chase St., Methuen, Mass.
Barnes Mfg. Co.
651 N. Main St., Mansfield, Ohio
Bar-Way Mfg. Co.
Stamford, Conn.
Beacon Falls Rubber Footwear
Main St., Beacon Falls, Conn.
John Bean Div.
Food Machinery & Chemical Corp.
1305 S. Cedar St., Lansing 4, Mich.
Bemis Bros. Bag Co.
610 S. 4th St., Minneapolis 15, Minn.
Bendix Corp.—Radio Div.
E. Joppa Rd., Baltimore 4, Md.
Benjamin Div., Thomas Industries
Northwest Hy. & Seegers Rd.
Des Plaines, Ill.
Bennett Mfg. Co.
Railroad St., Alden, N. Y.
Beryllium Corp.
P. O. Box 1462, Reading 17, Pa.
Bi-Lateral Fire Hose Co.
20 N. Wacker Dr., Chicago 6, Ill.
V. H. Blackinton Co.
140 Commonwealth Ave.
Attleboro Falls, Mass.
Blackmer Pump Co.
1809 Century, S.W.
Grand Rapids 9, Mich.
Blaw-Knox Co.
Automatic Sprinkler Dept.
829 Beaver Ave., Pittsburgh 33, Pa.
Blaze Guard Mfg. Co.
20-26 83d St., North Bergen, N. J.
Blitz Buggy Co.
Main St., Old Forge, N. Y.
Boardman Co.
P. O. Box 1152, Oklahoma City 1, Okla.
Bomgardner Mfg. Co.
1384 Hird Ave.
Cleveland 7, Ohio
Boston Woven Hose & Rubber Div.
American Biltrite Rubber Co.
P. O. Box 1071, Boston 3, Mass.
C. G. Braxmar Co.
216 E. 45th St., New York 17, N. Y.
Stewart R. Browne Mfg. Co.
258 Broadway, New York 7, N. Y.
Buckeye Machine Products Corp.
125 Hollier Ave., Dayton 3, Ohio
E. D. Bullard Co.
2680 Bridgeway
Sausalito, Calif.
Burdett Oxygen Co.
3300 Lakeside Ave., Cleveland 14, Ohio
William J. Burns
International Detective
Agency, Inc.
235 E. 42d St.
New York 17, N. Y.

C

Cairns & Brother, Inc.
854 Bloomfield Ave., (Allwood)
Clifton, N. J.
Carbisulphoil Co.
2917 Swiss Ave., Dallas 4, Tex.
Cardox Div., Chemetron Corp.
840 N. Michigan Ave., Chicago 11, Ill.
Carpenter Mfg. Co.
236 Bradley St., Somerville 45, Mass.
C. D. Pike & Fire Hook Mfg. Corp.
207 Orange St., New Haven 10, Conn.
Celanese Chemical Co.
Div. of Celanese Corp. of America
180 Madison Ave., New York 16, N. Y.
Central Safety Equipment Co.
Magee at Marsden
Philadelphia 35, Pa.
Central Station Signals, Inc.
53 W. 23d St., New York 10, N. Y.
Champion Sprayer Co.
6575 Heintz Ave., Detroit 11, Mich.
Chesebrough-Pond's, Inc.
485 Lexington Ave.
New York 17, N. Y.
Chicago Watchclock Systems
See Detex Watchclock Corp.
Christopher Co.
1095 Madison Ave., New York 28, N. Y.
Circul-Air Corp.
575 E. Milwaukee Ave.
Detroit 2, Mich.
Collins Co.
100 Front St., Collinsville, Conn.
Cooley, Inc.
401 Broadway, New York 13, N. Y.
Coppus Engineering Corp.
342 Park Ave., Worcester 10, Mass.
Cotton Goods Mfg. Co.
216 N. Clinton St.
Chicago 6, Ill.
S. H. Couch Co.
1 Arlington St., North Quincy 71, Mass.
Curtiss-Wright Corp.
Carlstadt, N. J.
Cycle-Flo Co.
986 Bridgeport Ave., Milford, Conn.

D

C. R. Daniels, Inc.
Daniels, Md.
W. S. Darley & Co.
2810 W. Washington Blvd.
Chicago 12, Ill.

continued on next page

Directory of Companies

continued from page 61

A. C. Davenport & Son, Inc.
311 N. Des Plaines St., Chicago 6, Ill.
Davis Emergency Equipment Co.
45 Halleck St., Newark 4, N. J.
Detex Watchclock Corp.
76 Varick St.
New York 13, N. Y.
Dieges & Clust
17 John St., New York 8, N. Y.
George W. Diener Mfg. Co.
427 N. Monticello Ave.
Chicago 24, Ill.
Draeger Corp.
432 Park Ave., New York 16, N. Y.
Duo-Safety Ladder Corp.
513 W. 9th Ave., Oshkosh, Wis.
E. I. du Pont de Nemours & Co.
Wilmington 98, Del.

E

Eagle Mfg. Co.
P.O. Box 110, Wellsburg, W.Va.
Eastern Metal of Elmira
130 Harrison St.
Elmira Heights, N. Y.
Samuel Eastman Co.
Concord, N. H.
Edwards Co.
90 Connecticut Ave., Norwalk, Conn.
(E&J) Ohio Chemical & Surgical Equipment Co., a division of Air Reduction Co.
1400 E. Washington Ave.
Madison 10, Wis.
Electric Cord Co.
21 Spruce St., New York 38, N. Y.
Elkhart Brass Mfg. Co.
1302 W. Beardsley Ave., Elkhart, Ind.
Elliott Service Co.
30 N. MacQuesten Pkwy.
Mt. Vernon, N. Y.
Emergency Aids Co.
3444 N. Clark St.
Chicago 13, Ill.
J. H. Emerson Co.
22 Cottage Park Ave.
Cambridge 40, Mass.
Estwing Mfg. Co.
2647 8th St., Rockford, Ill.
Ex-Cell Metal Products, Inc.
2037 W. Churchill, Chicago 47, Ill.
Exide Industrial Marketing Div.
Electric Storage Battery Co.
Rising Sun & Adams Ave.
Philadelphia 20, Pa.

F

Fabric Fire Hose Co.
Sandy Hook, Conn.
Fairbanks, Morse & Co.
3601 Kansas Ave., Kansas City, Kan.
Falcon Alarm Co.
243 Broad St., Summit, N. J.
Faraday, Inc.
2011 W. Beecher Rd., Adrian, Mich.
Federal Fire Hose Mfg. Co.
1532 W. 132d St., Gardena, Calif.
Federal Sign & Signal Corp.
13535 S. Western Ave., Blue Island, Ill.
Fenwal, Inc.
400 Pleasant St., Ashland, Mass.
Ferno Mfg. Co.
Greenfield, Ohio
Fire Chex Corp.
36136 Harper Ave., Mt. Clemens, Mich.
Fire Protection Co.
6601 S. Narragansett Ave.,
Chicago 38, Ill.
Fire Trucks, Inc.
36100 Harper Ave.,
Mt. Clemens, Mich.
Firewater Co.
1 First St., Los Altos, Calif.
Frank Mfg. Co.
101-111 W. Main St., Mentone, Ind.
Frommelt Industries
Box 419, Dubuque, Iowa
Fulton Cotton Mills
P. O. Box 1726, Atlanta, Ga.
Fyrepel Products, Inc.
160 S. Williams St.
Newark, Ohio
Fyr-Fyter Co.
221 Crane St., Dayton 1, Ohio

G

Gamewell Co.
1238 Chestnut St.
Newton Upper Falls 64, Mass.
General Chemical Div.
Allied Chemical Corp.
40 Rector St., New York 6, N. Y.
General Electric Co.
166 Broad St., Fitchburg, Mass.
General Fire Extinguisher Corp.
4714 N. 2d St., Philadelphia 20, Pa.
General Plant Protection Corp.
2515 W. 7th St., Los Angeles 57, Calif.
Gerstenslager Mfg. Co.
Wooster, Ohio
Globe Industries, Inc.
125 Sunrise Place
Dayton 7, Ohio
Globe Mfg. Co.
Pittsfield, N. H.
Goodall Rubber Co.
438 Whitehead Rd., Trenton 4, N. J.
B. F. Goodrich Footwear & Flooring Co.
Watertown, Mass.
B. F. Goodrich Industrial Products Co.
500 S. Main St., Akron 18, Ohio
Goodyear Tire & Rubber Co.
1144 E. Market St., Akron 16, Ohio
Gorman-Rupp Co.
305 Bowman St., Mansfield, Ohio
Goshen Mfg. Co.
10th & Reynolds Sts., Goshen, Ind.
Charles Gratz Fire Protection Co.
910 N. 2d St., Philadelphia 23, Pa.
Grimes Sprinkler Div., Raisler Corp.
750 3d Ave., New York 17, N. Y.
Grinnell Co.
260 W. Exchange St.
Providence 1, R. I.

H

Hale Fire Pump Co.
708 Spring Mill Ave.
Conshohocken, Pa.
A. E. Halperin Co.
75 Northampton St.
Boston 18, Mass.
Clifford B. Hannay & Son, Inc.
Westerlo, N. Y.
Hess & Eisenhardt Co.
Blue Ash Road, Cincinnati 42, Ohio
Hewitt Robins, Inc., Hewitt Rubber Div.
666 Glenbrook Rd., Stamford, Conn.
Holcomb Safety Garment Co.
118 N. Jefferson St., Chicago 6, Ill.
William Holmin Co.
1325 7th St., Rockford, Ill.
Hood Industrial Footwear & Gloves
Watertown 72, Mass.
Wm. E. Hooper & Sons Co.
Juniper & Cherry Sts.
Philadelphia 7, Pa.
Hoosier Tarpaulin & Canvas Goods Co.
1302 W. Washington St.
Indianapolis 6, Ind.
E. F. Houghton & Co.
303 W. Lehigh Ave.
Philadelphia 33, Pa.
Howe Fire Apparatus Co.
1402 W. 22d St., Anderson, Ind.

I

Independent Protection Co.
1603 S. Main St., Goshen, Ind.
Industrial Gloves Co.
700 Garfield St., Danville, Ill.
Industrial Products Co.
2826 N. 4th St., Philadelphia 33, Pa.
Industrial Safety Specialties Co.
Maple & Lawn Aves., Sellersville, Pa.
Ingersoll-Rand Co.
11 Broadway, New York 4, N. Y.
International Harvester Co.
Motor Truck Div.
180 N. Michigan Ave., Chicago 1, Ill.
IPCO Safety Products Co.
400 S. Jefferson St., Orange, N. J.

J

Janesville Apparel Co.
P. O. Box 306, Janesville, Wis.
Jaxco, Inc.
P. O. Box 222, Wautoma, Wis.
Johnson & Johnson
New Brunswick, N. J.
Johnson-National Insignia Co.
10 Maiden Lane, New York 38, N. Y.
Johnson-Williams, Inc.
P. O. Box 11307, Station A
Palo Alto, Calif.
Junkin Safety Appliance Co.
3121 Millers Lane,
Louisville 16, Ky.
Justrite Mfg. Co.
2061 N. Southport Ave.
Chicago 14, Ill.

K

Kalamazoo Mfg. Co.
1827 Reed St., Kalamazoo, Mich.
Walter Kidde & Co.
557 Main St., Belleville 9, N. J.

Kidde Ultrasonic & Detection Alarms Div.
557 Brighton Rd., Clifton, N. J.
Kimball Safety Products Co.
9310 Wade Park Ave.
Cleveland 6, Ohio
Kinnear Mfg. Co.
130 Fields Ave., Columbus 16, Ohio
Kin Tel
a division of Colin Electronics, Inc.
5725 Kearny Villa Rd.
San Diego 11, Calif.
Koehler Mfg. Co.
Marlboro, Mass.

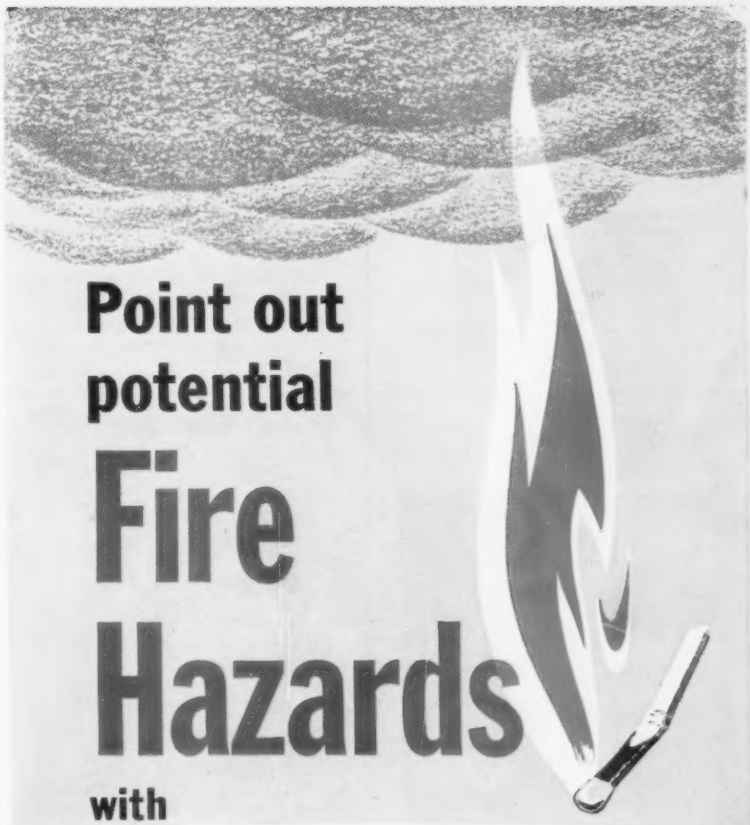
L

Leeder Mfg. Co.
P. O. Box F, Briarcliff Manor, N. Y.
Linde Co.
a division of Union Carbide Corp.
270 Park Ave. ,New York 17, N. Y.

M

M & H Valve & Fittings Co.
P. O. Box 151, Anniston, Ala.
Mack Trucks, Inc., Fire Apparatus Div.
1355 W. Front St., Plainfield, N. J.
Mann Edge Tool Co.
P. O. Box 351, Lewistown, Pa.
Mars Signal Light Co.
4322 W. Chicago Ave., Chicago 51, Ill.
Maxim Motor Co.
170 Wareham St., Middleboro, Mass.
John J. McKune & Sons Co.
7435 N. Western Ave., Chicago, Ill.
Julian A. McDermott Corp.
1639 Stephen St.
Ridgewood 27, L. I., N. Y.
McGill Mfg. Co.
650 N. Campbell St., Valparaiso, Ind.
F. N. McIntire Co.
377 Putnam Ave., Cambridge 39, Mass.
Medical Supply Co.
1027 W. State St.
Rockford, Ill.
Mercer Rubber Co.
140 Mercer St., Hamilton Square, N. J.
Metal Arts Co.
742 Portland Ave.
Rochester 21, N. Y.
Metallic Ladder Mfg. Corp.
2 Sheldon St., Randolph, N. Y.
Metrox, Inc.
4335 Governor Printz Blvd.
Wilmington 2, Del.
Midwestern Safety Mfg. Co.
Mackinaw, Ill.
Miller-Meteor Div., Divco-Wayne Corp.
Bellefontaine, Ohio
Mine Safety Appliances Co.
201 N. Braddock Ave.
Pittsburgh 8, Pa.
Minneapolis-Honeywell Regulator Co.
2747 4th Ave. S., Minneapolis 8, Minn.
Minnesota Mining & Mfg. Co.
Reflective Products Div.
900 Bush Ave.,
St. Paul 6, Minn.
J. J. Monaghan Co.
500 Alcott St., Denver 4, Colo.
Monsanto Chemical Co., Organic Div.
800 N. Lindenbergh Blvd.
St. Louis 66, Mo.

continued on next page



Point out potential

Fire Hazards

with Stonehouse Signs

Alert every man in your plant to potential fire dangers with bright, easy-to-see FIRE PREVENTION SIGNS from STONEHOUSE.

All Stonehouse Signs are designed and manufactured to accomplish this purpose in the most effective manner. They are of the highest quality workmanship and materials and comply fully with American Standard Specifications.

Hundreds of different stock-worded accident-prevention signs are available for prompt shipment. Usually the same day your order is received.

Write today for our free, full-color, 64-page catalog, plus information about custom-printed signs to meet your specifications.

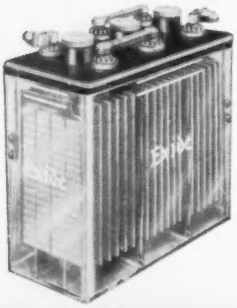
Stonehouse SIGNS

Signs Since 1863

STONEHOUSE SIGNS, INC., 9th and Larimer Streets, Denver 4, Colorado

Circle No. 58 on reader service card

YOU NEED A GOOD BATTERY FOR GOOD LIGHT



When regular lights go out, Lightguard goes on . . . instantly and automatically. This is Model A, the most popular model. Others include dry cell Model D and new Model E to cover large areas.

Only Exide Lightguard® emergency lighting units have genuine Exide storage Batteries. Extra capacity and extra life are built in. When your regular power fails and Exide Lightguard goes on, you're assured of extra hours of strong light. And you can go for a good many years without battery replacement expense. Exide Lightguard is completely automatic. Goes on when lights go out. Built-in charger automatically brings battery back to capacity after each time used and keeps it there. Easy to install. Just plug into regular a-c outlet. Ask about it at your nearby electrical distributor's. Or write for literature. Exide Industrial Marketing Division, The Electric Storage Battery Company, Philadelphia 20, Pa.

Exide®

INDUSTRIAL MARKETING DIVISION
The Electric Storage Battery Company

Circle No. 59 on reader service card

Directory of Companies

continued from page 63

Morning Pride Mfg. Co.
1986 Home Ave.
Dayton 7, Ohio
Motorola Communications & Electronics, Inc.
4501 W. Augusta Blvd., Chicago 51, Ill.
Mueller Co.
2501 Chestnut St., Chattanooga, Tenn.
F. E. Myers & Bro. Co.
Ashland, Ohio

N

National Alarms Corp.
Scott, La.
National Coaches, Inc.
Main St., Knightstown, Ind.
National Foam System, Inc.
Union & Adams Sts., West Chester, Pa.
National Trophy Sales, Inc.
75 W. Van Buren St., Chicago, Ill.
Neep Equipment Co.
326 N. W. Broadway, Portland 9, Ore.
Newark Ladder & Bracket Co.
Walnut & Central Aves.
Clark (P. O. Rahway), N. J.
New Oxford Industries, Inc.
New Oxford, Pa.
Chas. Niedner's Sons Co.
10-20 James St., Malden 48, Mass.
North American Signal Co.
909 W. Randolph St.,
Chicago 7, Ill.
Notifier Corp.
3700 N. 56th St.
Lincoln 4, Neb.
Notte Safety Appliances Co.
340 N. Park St., East Orange, N. J.

O

(E&J) Ohio Chemical & Surgical Equipment Co., a division of Air Reduction Co.
1400 E. Washington Ave.
Madison 10, Wis.
Onan & Sons, Inc.
University Ave. & 25th St., S.E.
Minneapolis 14, Minn.
Oren Roanoke Corp.
1201-09 W. Salem Ave.
Roanoke 2, Va.
Orthopedic Frame Co.
420 Alcott St.
Kalamazoo, Mich.
Overly Mfg. Co.
574 W. Otterman St., Greensburg, Pa.
Oxygen Equipment & Service Co.
8335 S. Halsted St., Chicago 20, Ill.

P

Pac-Kit Co.
P.O. Box 1306
Greenwich, Conn.
Parco Products Co.
Pennsburg, Pa.
Peerless Pump Div.
Food Machinery & Chemical Corp.
301 W. Avenue 26
Los Angeles 31, Calif.
Penn Ventilator Co.
Goodman above Allegheny Ave.
Philadelphia 40, Pa.
Perkins Battery Co.
1601 Monroe St., York 2, Pa.
Philco Corp.
4700 Wissahickon Ave.
Philadelphia 44, Pa.
Pinkerton's National Detective Agency, Inc.
100 Church St., New York 7, N. Y.
Peter Pirsch & Sons Co.
1308 35th St., Kenosha, Wis.
H. K. Porter, Inc., P-F Div.
74 Foley St., Somerville 43, Mass.
Porto Pump, Inc.
19735 Ralston Ave., Detroit 3, Mich.
Powhatan Brass & Iron Works, Inc.
Ranson, W. Va.
Prairie State Products Co.
3822 Lawrence Ave.
Chicago 25, Ill.
Progress Mfg. Co.
Arthur, Ill.
Protection Engineering Corp.
6900 S. Hoover St.
Los Angeles 44, Calif.
Protectoseal Co.
1920 S. Western Ave.
Chicago 8, Ill.
Pulmosan Safety Equipment Corp.
644 Pacific St.
Brooklyn 17, N. Y.
Pyle-National Co.
1334 N. Kostner Ave., Chicago 51, Ill.
Pyrotronics Div., Baker Industries
P. O. Box 2390, Newark 12, N. J.

R

Racine Glove Co.
Rio, Wis.
Radio Corp. of America
Front & Cooper Sts., Camden 2, N. J.
Raisler Sprinkler Div., Raisler Corp.
750 3d Ave., New York 17, N. Y.
Randolph Laboratories, Inc.
8 E. Kinzie St., Chicago 11, Ill.
Raybestos-Manhattan, Inc.
61 Willett St., Passaic, N. J.
Ray-O-Vac Co.
212 E. Washington Ave.
Madison 10, Wis.
Ready Made Sign Co.
115-17 Worth St.
New York 13, N. Y.
Red Comet, Inc.
Red Comet Bldg., Littleton, Colo.
Reliable Automatic Sprinkler Co.
525 N. MacQuesten Pkwy.
Mt. Vernon, N. Y.
Republic Rubber Div.
Lee Rubber & Tire Corp.
Albert St., Youngstown 1, Ohio
Rockwood Sprinkler Co.
a division of Gamewell Co.
38 Harlow St.,
Worcester 5, Mass.

S

Safety Clothing & Equipment Co.
1990 E. 69th St., Cleveland 3, Ohio
Safety First Products Corp.
175 Saw Mill River Rd.
Elmsford, N. Y.
Safety First Supply Co.
425 Magee St.
Pittsburgh 19, Pa.
Safety Floor Products Co.
3038 W. 84th Place, Chicago 52, Ill.
Sanford Fire Equipment Corp.
1620 Burnet Ave., Syracuse 6, N. Y.
Sargent-Sowell, Inc.
P. O. Box 810, Grand Prairie, Tex.
Schwerdtle Stamp Co.
166 Elm St., Bridgeport 3, Conn.
Scott Aviation Corp.
229 Erie St., Lancaster, N. Y.
Seagrave Corp.
2000 S. High St., Columbus 7, Ohio
Seco Mfg., Inc.
4461 W. Jefferson, Detroit 9, Mich.
Sharpsville Steel Fabricators, Inc.
Sharpsville, Pa.
Shell Oil Co.
50 W. 50th St., New York 20, N. Y.
Shop of Siebert Associates, Inc.
Farnsworth Road, Waterville, Ohio
Singer Glove Mfg. Co.
860 W. Weed St.
Chicago 22, Ill.
A. Smith & Son, Inc.
1239 Ridge Ave., Philadelphia 23, Pa.
D. B. Smith & Co.
414 Main St., Utica 2, N. Y.
M. L. Snyder & Son, Inc.
2436 N. Jasper St., Philadelphia 25, Pa.
Standard Alarm Signal Co.
249 Main St., Madison, N. J.
Standard Fire Alarm & Signal, Inc.
100 Old York Rd., Jenkintown, Pa.
Standard Industrial Products Co.
3527 N. Farmington Rd.
Peoria, Ill.
Standard Safety Equipment Co.
431 N. Quentin Rd.
Palatine, Ill.
Standard Signs, Inc.
3194 E. 65th St., Cleveland 27, Ohio
Star Sprinkler Corp.
Westmoreland & Collins St.
Philadelphia 34, Pa.
Statikil, Inc.
1220 W. 6th St.,
Cleveland 13, Ohio
Stebco Industries, Inc.
1415 W. Jackson Blvd., Chicago 7, Ill.
Stempel Fire Extinguisher Mfg. Co.
2436 N. Jasper St., Philadelphia 25, Pa.
Stephenson Corp.
P.O. Box 392, Red Bank, N. J.
Sterling Siren Fire Alarm Co.
8 Bartlett St., Rochester 8, N. Y.
S. G. Stevens Co.
3859 Lockwood Ave., Toledo 12, Ohio
S-T Hydrant Wrench Co.
P. O. Box 921, Holyoke, Mass.
Stonehouse Signs, Inc.
842 Larimer St.
Denver 4, Colo.
Stop-Fire, Inc.
P. O. Box 9, Monmouth Junction, N. J.
Superior Coach Corp.
E. Kibby St., Lima, Ohio

T

Thermoid Div., H. K. Porter, Inc.
Tacony & Comly St.
Philadelphia 24, Pa.
W. J. Thiele & Sons, Inc.
Pine & Cherry, Johnstown, Pa.
Timmins Splint Co.
2126 Cuming St., Omaha 2, Neb.
Tokheim Corp.
1602 Wabash Ave., Fort Wayne 1, Ind.

U

U-C Lite Mfg. Co.
1050 W. Hubbard St.
Chicago 22, Ill.

Union Carbide Chemicals Co.
a division of Union Carbide Corp.
270 Park Ave., New York 17, N. Y.
U. S. Rubber Co.
1230 Ave. of the Americas
New York 20, N. Y.
Universal Fire Apparatus Corp.
Wheatland & Center Sts.
Logansport, Ind.

V

Valley Fire Truck Co.
59 Tuscola Rd., Bay City, Mich.

continued on next page

STAYS PUT!

Your men may never have to stand on their hands . . . but whatever the demands of the job, you can be sure Hedgard will stay put without the discomfort of a chin strap.
The exclusive Davis plastic, snap-in suspension is designed to fit all head sizes snugly . . . and so comfortably, that your men will *want* to wear them!
The high impact Hedgard is available in a Dielectric or All Plastic model, unaffected by heat or cold.
In 3 colors: gray, white, yellow.

- Replaceable soft sponge sweatband.
- Two adjustments to fit all sizes.
- Gripper surface hugs head snugly.

Send for Bulletin No. 1419

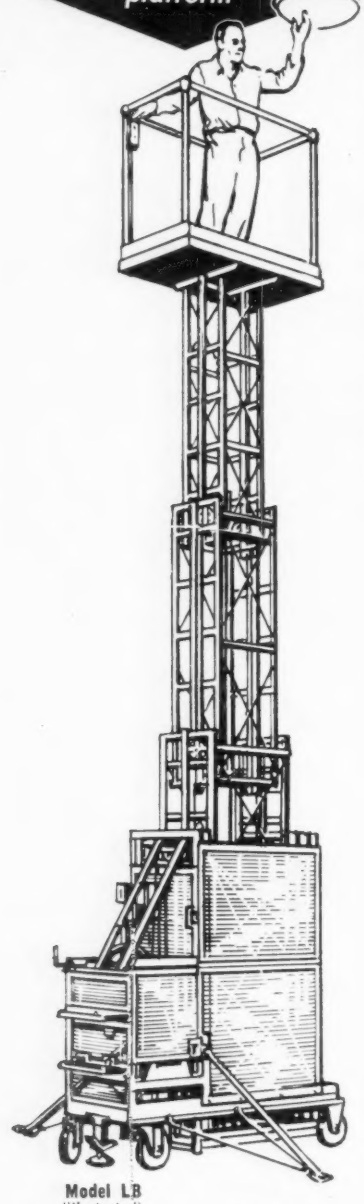
SAFETY DAVIS DIVISION

DAVIS EMERGENCY EQUIPMENT **CO., INC.**

59 Halleck Street, Newark 4, New Jersey
In Canada: Levitt Safety Ltd., 747 Vaughan Road, Toronto

Circle No. 60 on reader service card

Complete Safety
with a
HI-REACH TELESCOPER
Fast work with all tools and materials on the platform



Model LB
(illustrated)
Hi-Reach Telescoper
Lifts 20 ft. to 40 ft.
$1510.00 up

Model PUL
Lift 10'9"—$370.00
Lift 15'0"—$400.00

Custom built Hi-Reach Telescopers up to 100 ft.
Write for complete catalogue
Headquarters for standard and special built overhead servicing lifters and material handling equipment since 1901.

ECONOMY ENGINEERING
4534 West Lake Street, Chicago 24, Illinois
Circle No. 61 on reader service card

Directory of Companies

continued from page 65

Van Loon Industries, Inc.
3409 E. McNichols Rd.
Detroit 12, Mich.
Victor Adding Machine Co.
3900 N. Rockwell St., Chicago 18, Ill.
Viking Corp.
435 E. Mill St., Hastings, Mich.
Vonnegut Hardware Co.
Von Duprin Div.
402 W. Maryland St.
Indianapolis 9, Ind.

W

Wamsutta/Pacific Industrial Fabrics
1430 Broadway, New York 18, N. Y.
Washington Products Co.
238 S. Fayette St.
Washington Court House, Ohio
Watchemoket Optical Co.
232 W. Exchange St.
Providence 3, R. I.
Waterous Co.
80 E. Fillmore Ave., St. Paul 7, Minn.
Western Fire Equipment Co.
69 Main St., San Francisco 5, Calif.
Wheeler Protective Apparel, Inc.
228 W. Huron St.
Chicago 10, Ill.
Williams Jewelry & Mfg. Co.
10 S. Wabash Ave., Chicago 3, Ill.
Willson Products Div.,
Ray-O-Vac Co.
212 E. Washington Ave.
Madison 10, Wis.
Wirt & Knox Mfg. Co.
23rd & York Sts.
Philadelphia 32, Pa.
Witt Cornice Co.
4462 Steel Place, Cincinnati 9, Ohio

EYE WASHING FOUNTAIN

SAVE EYES!

Leading industrial doctors advise immediate washing with plenty of running water as the best first aid treatment for any chemical in the eyes. Records prove that washing with water for ten minutes or more, close to the accident, is necessary to reduce or eliminate eye damage.

Forehead operation leaves hands free to open eyelids so water can be directed wherever chemicals might be lodged. Sanitary white baked enamel bowl is resistant to most fumes.

Over 500 industrial plant installations have been made to date.

Write For Details.

VALVE
Chain Operated
Quick Action
Self-Closing

NEW EMERGENCY SHOWER

Deluge of Water 30 to 40 G.P.M.

The B & A Shower is the quickest and most satisfactory way to saturate a worker with gallons of water the instant an accident occurs, to prevent a disfiguring burn—even a fatality.

Special shower head, no holes to clog—can be used where unfiltered water prevails.

Write For Details.

NEW LOW COST B & A SAF-T-BAGS

5 PINT
1 GALLON
5 GALLON

are widely used for the safe handling of glass bottles containing harmful chemicals; also the storage and recovery of expensive serums, biologicals, and other costly products.

Painful cuts, disfiguring burns, loss of eyesight, or even a fatality, do result from corrosive liquid splash and flying glass when unprotected bottles shatter.

Write For Details.

BENSON & ASSOCIATES, INC.
Dept. OH, P.O. Box 7542, Chicago 80, Ill.
Circle No. 62 on reader service card

14TH ANNUAL FIRE PROTECTION EQUIPMENT GUIDE

Directory of Products

ALARM SYSTEMS

Automatic

American District Telegraph Co.
American LaFrance
Autocall Co.
Automatic Sprinkler Corp. of America
Buffalo Fire Appliances (Fyr-Fyter Co.)
Central Station Signals, Inc.
S. H. Couch Co.
Edwards Co.
Falcon Alarm Co.
Faraday, Inc.
Fire Protection Co.
Fyr-Fyter Co.
Gamewell Co.
Globe Automatic Sprinkler (Fyr-Fyter Co.)
Grimes Sprinkler Div., Raisler Corp.
Grinnell Co.
Walter Kidde & Co.
Kidde Ultrasonic & Detection Alarms Div.
Minneapolis-Honeywell Regulator Co.
Notifier Corp.
Protection Engineering Corp.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Pyrotronics Div., Baker Industries
Raisler Sprinkler Div., Raisler Corp.
Reliable Automatic Sprinkler Co.
Rockwood Sprinkler Co.
SAFA Alarm (Fyr-Fyter Co.)
M. L. Snyder & Son, Inc.
Standard Fire Alarm & Signal, Inc.
Star Sprinkler Corp.
Viking Corp.

Central Station

American District Telegraph Co.
American LaFrance
Central Station Signals, Inc.
S. H. Couch Co.
Edwards Co.
Faraday, Inc.
Fyr-Fyter Co.
Gamewell Co.
Notifier Corp.

Industrial

American District Telegraph Co.
American LaFrance
Autocall Co.
Benjamin Div., Thomas Industries
Central Station Signals, Inc.
S. H. Couch Co.
Edwards Co.
Falcon Alarm Co.
Federal Sign & Signal Corp.
Gamewell Co.
Kidde Ultrasonic & Detection Alarms Div.
Minneapolis-Honeywell Regulator Co.
Notifier Corp.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Pyrotronics Div., Baker Industries
Rockwood Sprinkler Co.
SAFA Alarm (Fyr-Fyter Co.)
Standard Fire Alarm & Signal, Inc.

Sirens, Horns, Whistles

American LaFrance
Autocall Co.
B & M Siren Mfg. Co.
Benjamin Div., Thomas Industries
S. H. Couch Co.
W. S. Darley & Co.
Edwards Co.
Falcon Alarm Co.
Faraday, Inc.
Federal Sign & Signal Corp.
Fyr-Fyter Co.
Gamewell Co.
Howe Fire Apparatus Co.
Mars Signal Light Co.
North American Signal Co.
Pyle-National Co.
Pyrotronics Div., Baker Industries
SAFA Alarm (Fyr-Fyter Co.)
Sargent-Sowell, Inc.
Standard Fire Alarm & Signal, Inc.
Sterling Siren Fire Alarm Co.

BUILDING MATERIAL

Acoustical Ceilings

Armstrong Cork Co.

COMMUNICATIONS

Closed-Circuit TV

Kin Tel, a division of Colin Electronics, Inc.
Philco Corp.

Megaphones

Audio Equipment Co.

Two-Way Radio

Bendix Corp., Radio Div.
Motorola Communications & Electronics, Inc.
Radio Corp. of America

EXTINGUISHERS

CO_2

W. D. Allen Mfg. Co.
American Industrial Safety Equipment Co.
American LaFrance
American Rubber Mfg. Co.
Ansul Chemical Co.
Badger Fire Extinguisher Co.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Burdett Oxygen Co.
Cardox Div., Chemetron Corp.
Geo. W. Diener Mfg. Co.
Elkhart Brass Mfg. Co.
Fire Chex Corp.
Fyr-Fyter Co.
General Fire Extinguisher Corp.
Walter Kidde & Co.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Randolph Laboratories, Inc.
Red Comet, Inc.
Sargent-Sowell, Inc.
Seco Mfg., Inc.
M. L. Snyder & Son, Inc.
Wirt & Knox Mfg. Co.

Dry Chemical

Alim Corp.
W. D. Allen Mfg. Co.
American LaFrance
American Rubber Mfg. Co.
Ansul Chemical Co.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Elkhart Brass Mfg. Co.
Fyr-Fyter Co.
General Fire Extinguisher Corp.
Howe Fire Apparatus Co.
Walter Kidde & Co.
Leeder Mfg. Co.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Randolph Laboratories, Inc.
Red Comet, Inc.
Safety First Products Corp.
Sargent-Sowell, Inc.
Seco Mfg., Inc.
M. L. Snyder & Son, Inc.
Stop-Fire, Inc.
Wirt & Knox Mfg. Co.

Foam

W. D. Allen Mfg. Co.
American LaFrance
American Rubber Mfg. Co.
Badger Fire Extinguisher Co.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Cardox Div., Chemetron Corp.
Geo. W. Diener Mfg. Co.
Elkhart Brass Mfg. Co.
Fire Chex Corp.
Fyr-Fyter Co.
General Fire Extinguisher Corp.
Howe Fire Apparatus Co.
Walter Kidde & Co.
National Foam System, Inc.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Randolph Laboratories, Inc.
Red Comet, Inc.
Rockwood Sprinkler Co.
Seco Mfg., Inc.
M. L. Snyder & Son, Inc.
Stempel Fire Extinguisher Mfg. Co.
Stop-Fire, Inc.
Wirt & Knox Mfg. Co.

Hose Reel

W. D. Allen Mfg. Co.

continued on next page

Directory of Products

continued from page 67

American LaFrance
Buffalo Fire Appliances (Fyr-Fyter Co.)
Fyr-Fyter Co.
Clifford B. Hannay & Son, Inc.
Howe Fire Apparatus Co.
Walter Kidde & Co.
Powhatan Brass & Iron Works, Inc.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Randolph Laboratories, Inc.
M. L. Snyder & Son, Inc.
Western Fire Equipment Co.
Wirt & Knox Mfg. Co.

Metal Fires

Alim Corp.
American LaFrance
Ansul Chemical Co.
Buffalo Fire Appliances (Fyr-Fyter Co.)

Soda-Acid

W. D. Allen Mfg. Co.
American LaFrance
American Rubber Mfg. Co.
Badger Fire Extinguisher Co.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Cardox Div., Chemetron Corp.
Geo. W. Diener Mfg. Co.
Elkhart Brass Mfg. Co.
Fire Chex Corp.
Fyr-Fyter Co.
General Fire Extinguisher Corp.
Walter Kidde & Co.
National Foam System, Inc.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Randolph Laboratories, Inc.
Red Comet, Inc.
Sargent-Sowell, Inc.
Seco Mfg., Inc.
M. L. Snyder & Son, Inc.
Stempel Fire Extinguisher Mfg. Co.
Stop-Fire, Inc.
Wirt & Knox Mfg. Co.

Vaporizing Liquid

W. D. Allen Mfg. Co.
American LaFrance
American Rubber Mfg. Co.
Badger Fire Extinguisher Co.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Geo. W. Diener Mfg. Co.
Elkhart Brass Mfg. Co.
Fire Chex Corp.
Fyr-Fyter Co.
General Fire Extinguisher Corp.
Howe Fire Apparatus Co.
Justrite Mfg. Co.
Walter Kidde & Co.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Randolph Laboratories, Inc.
Red Comet, Inc.
Seco Mfg., Inc.
M. L. Snyder & Son, Inc.
Stop-Fire, Inc.
Wirt & Knox Mfg. Co.

Water

W. D. Allen Mfg. Co.
American LaFrance
American Rubber Mfg. Co.
Ansul Chemical Co.
Aquadyne Corp.
Badger Fire Extinguisher Co.
John Bean Div.,
Food Machinery & Chemical Corp.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Cardox Div., Chemetron Corp.
Champion Sprayer Co.
Geo. W. Diener Mfg. Co.
Elkhart Brass Mfg. Co.
Fyr-Fyter Co.
General Fire Extinguisher Corp.
Howe Fire Apparatus Co.
Walter Kidde & Co.
Parco Products Co.
Protectoseal Co.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Randolph Laboratories, Inc.
Safety First Products Corp.
Seco Mfg., Inc.
D. B. Smith & Co., Inc.
M. L. Snyder & Son, Inc.
Stempel Fire Extinguisher Mfg. Co.
Stop-Fire, Inc.
Wirt & Knox Mfg. Co.

Wheeled

W. D. Allen Mfg. Co.
American LaFrance
Ansul Chemical Co.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Geo. W. Diener Mfg. Co.
Elkhart Brass Mfg. Co.
Fyr-Fyter Co.
General Fire Extinguisher Corp.
Walter Kidde & Co.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Randolph Laboratories, Inc.
Safety First Products Corp.
Seco Mfg., Inc.
M. L. Snyder & Son, Inc.

continued on page 71

—with a Detex Guardsman Watchclock System

If it's true that most of us stay honest because of the fear of getting caught—the Guardsman rates as America's No. 1 mechanical conscience. ■ Alone in your empty plant, will your guard succumb to the temptation to sleep and skip rounds? Or will he be alert for a dozen hazards that can cause trouble, perhaps disaster? ■ The Guardsman works both ways. If your guard's integrity is questioned, its tamper-proof, embossed record proves his devotion to duty. ■ For management, the Guardsman offers other advantages: extra tape capacity for long weekends and holidays saves supervisors' overtime. ■ Protection is too vital to trust to chance. Play safe. Modernize with the Guardsman. Send for information today.

Find Your Nearest DETEX Inspector In The Yellow Pages

DETEX
WATCHCLOCK CORPORATION
Dept. O-6, 76 Varick Street
New York 13, New York

Write today on your letterhead for FREE Detex Property Protection Manual. (2-10 copies, 20¢ each; 11-50 copies, 15¢ each; 50 or more copies, 10¢ each.)

Circle No. 63 on reader service card

Facts At Your Fingertips

If you want details about products described or advertised in this issue, circle the number on the card that corresponds with the number under each advertisement or product description.

Occupational Hazards

Was this copy correctly addressed?

If not, use this card to give us your complete mailing address plus the old (incorrect) one

OH is now addressed like this:

It should be changed to this:

Products manufactured (or other business carried on) at this address _____

My job title _____

Signature _____

PLEASE PRINT

June 1961. Do not use after Sept. 15, 1961

Name _____ Position _____

Company _____ Kind of Business _____

Street _____

City _____ Zone _____ State _____

Please send me additional information and literature on items circled below.

1	17	33	49	65	81	97	113	129	145	161	177	193	209	225	241	257	273	289	305	321
2	18	34	50	66	82	98	114	130	146	162	178	194	210	226	242	258	274	290	306	322
3	19	35	51	67	83	99	115	131	147	163	179	195	211	227	243	259	275	291	307	323
4	20	36	52	68	84	100	116	132	148	164	180	196	212	228	244	260	276	292	308	324
5	21	37	53	69	85	101	117	133	149	165	181	197	213	229	245	261	277	293	309	325
6	22	38	54	70	86	102	118	134	150	166	182	198	214	230	246	262	278	294	310	326
7	23	39	55	71	87	103	119	135	151	167	183	199	215	231	247	263	279	295	311	327
8	24	40	56	72	88	104	120	136	152	168	184	200	216	232	248	264	280	296	312	328
9	25	41	57	73	89	105	121	137	153	169	185	201	217	233	249	265	281	297	313	329
10	26	42	58	74	90	106	122	138	154	170	186	202	218	234	250	266	282	298	314	330
11	27	43	59	75	91	107	123	139	155	171	187	203	219	235	251	267	283	299	315	331
12	28	44	60	76	92	108	124	140	156	172	188	204	220	236	252	268	284	300	316	332
13	29	45	61	77	93	109	125	141	157	173	189	205	221	237	253	269	285	301	317	333
14	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254	270	286	302	318	334
15	31	47	63	79	95	111	127	143	159	175	191	207	223	239	255	271	287	303	319	335
16	32	48	64	80	96	112	128	144	160	176	192	208	224	240	256	272	288	304	320	336

Please send free tear sheet of pages _____.

Card Invalid Without Company Name —

PLEASE PRINT

June 1961. Do not use after Sept. 15, 1961

Name _____ Position _____

Company _____ Kind of Business _____

Street _____

City _____ Zone _____ State _____

Please send me additional information and literature on items circled below.

1	17	33	49	65	81	97	113	129	145	161	177	193	209	225	241	257	273	289	305	321
2	18	34	50	66	82	98	114	130	146	162	178	194	210	226	242	258	274	290	306	322
3	19	35	51	67	83	99	115	131	147	163	179	195	211	227	243	259	275	291	307	323
4	20	36	52	68	84	100	116	132	148	164	180	196	212	228	244	260	276	292	308	324
5	21	37	53	69	85	101	117	133	149	165	181	197	213	229	245	261	277	293	309	325
6	22	38	54	70	86	102	118	134	150	166	182	198	214	230	246	262	278	294	310	326
7	23	39	55	71	87	103	119	135	151	167	183	199	215	231	247	263	279	295	311	327
8	24	40	56	72	88	104	120	136	152	168	184	200	216	232	248	264	280	296	312	328
9	25	41	57	73	89	105	121	137	153	169	185	201	217	233	249	265	281	297	313	329
10	26	42	58	74	90	106	122	138	154	170	186	202	218	234	250	266	282	298	314	330
11	27	43	59	75	91	107	123	139	155	171	187	203	219	235	251	267	283	299	315	331
12	28	44	60	76	92	108	124	140	156	172	188	204	220	236	252	268	284	300	316	332
13	29	45	61	77	93	109	125	141	157	173	189	205	221	237	253	269	285	301	317	333
14	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254	270	286	302	318	334
15	31	47	63	79	95	111	127	143	159	175	191	207	223	239	255	271	287	303	319	335
16	32	48	64	80	96	112	128	144	160	176	192	208	224	240	256	272	288	304	320	336

Please send free tear sheet of pages _____.

Card Invalid Without Company Name —

Facts at your fingertips

FIRST CLASS
PERMIT No. 8066
CLEVELAND, OHIO

BUSINESS REPLY MAIL
NO POSTAGE STAMP NECESSARY IF MAILED IN THE UNITED STATES

POSTAGE WILL BE PAID BY: *Reader Service Department*

Occupational Hazards
812 Huron Road
Cleveland 15, Ohio

FIRST CLASS
PERMIT No. 8066
CLEVELAND, OHIO

BUSINESS REPLY MAIL
NO POSTAGE STAMP NECESSARY IF MAILED IN THE UNITED STATES

POSTAGE WILL BE PAID BY: *Reader Service Department*

Occupational Hazards
812 Huron Road
Cleveland 15, Ohio

FIRST CLASS
PERMIT No. 8066
CLEVELAND, OHIO

BUSINESS REPLY MAIL
NO POSTAGE STAMP NECESSARY IF MAILED IN THE UNITED STATES

POSTAGE WILL BE PAID BY: *Reader Service Department*

Occupational Hazards
812 Huron Road
Cleveland 15, Ohio

FACTS at your fingertips

The most modern Reader Service Department in the publishing industry, staffed and trained to help readers. Automatic equipment processes your requests and shoots them on for fulfillment within hours after receipt. The materials you want get to you — fast.

These cards are your tickets to this prompt service. Use them to secure details about any item in this issue that has a key number. For instance:

ADVERTISEMENTS—a showcase of the latest in components, equipment and techniques.

NEW PRODUCTS—brief descriptions of significant new products and materials.

PRODUCT APPLICATIONS—brief reports on successful applications of recently developed products and materials.

NEW LITERATURE—offerings of new catalogs, data books, price lists, and other valuable reference material.

continued from page 68

EXTINGUISHING SYSTEMS

Built-in CO_2 Systems

American LaFrance
Automatic Sprinkler Corp. of America
Cardox Div., Chemetron Corp.
Fyr-Fyter Co.
General Fire Extinguisher Corp.
Globe Automatic Sprinkler Co.
Grinnell Co.
Walter Kidde & Co.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Randolph Laboratories, Inc.
Rockwood Sprinkler Co.

Dry Chemical Systems

Ansul Chemical Co.
Automatic Sprinkler Corp. of America
Fyr-Fyter Co.
Walter Kidde & Co.

Foam Deluge Systems

Automatic Sprinkler Corp. of America
National Foam System, Inc.

FIRE BLANKETS

E. D. Bullard Co.
Cotton Goods Mfg. Co.
C. R. Daniels, Inc.
Davis Emergency Equipment Co.
Frommelt Industries
Fyrepel Products, Inc.
Fulton Cotton Mills
A. E. Halperin Co.
Holcomb Safety Garment Co.
Hoosier Tarpaulin & Canvas Goods Co.
Industrial Gloves Co.
Industrial Products Co.
Industrial Safety Specialties Co.
Jaxco, Inc.
Junkin Safety Appliance Co.
Medical Supply Co.
Mine Safety Appliances Co.
Pulmosan Safety Equipment Corp.
Raybestos-Manhattan, Inc.
Safety Clothing & Equipment Co.
Safety First Supply Co.
Seco Mfg., Inc.
Singer Glove Mfg. Co.
M. L. Snyder & Son, Inc.
Standard Safety Equipment Co.
Wheeler Protective Apparel, Inc.

FIRE DETECTION SYSTEMS

Automatic

American District Telegraph Co.
American LaFrance
Autocall Co.
Automatic Sprinkler Corp. of America
Blaw-Knox Co.,
Automatic Sprinkler Dept.
Cardox Div., Chemetron Corp.
Central Station Signals, Inc.
S. H. Couch Co.
Edwards Co.
Falcon Alarm Co.
Faraday, Inc.
Fire Protection Co.
Fyr-Fyter Co.
Gamewell Co.
Globe Automatic Sprinkler
(Fyr-Fyter Co.)
Grimes Sprinkler Div., Raisler Corp.
Grinnell Co.
Walter Kidde & Co.
Kidde Ultrasonic & Detection Alarms Div.
Minneapolis-Honeywell Regulator Co.
Notifier Corp.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Pyrotronics Div., Baker Industries
Raisler Sprinkler Div., Raisler Corp.
Reliable Automatic Sprinkler Co.
Rockwood Sprinkler Co.
SAFA Alarm (Fyr-Fyter Co.)
Standard Alarm Signal Co.
Star Sprinkler Corp.

Sensing Units

Autocall Co.
Central Station Signals, Inc.
S. H. Couch Co.
Fenwal, Inc.
Gamewell Co.
Kidde Ultrasonic & Detection Alarms Div.
Minneapolis-Honeywell Regulator Co.
Notifier Corp.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Pyrotronics Div., Baker Industries

Fire Protection Systems

American LaFrance
Ansul Chemical Co.
Automatic Sprinkler Corp. of America
Cardox Div., Chemetron Corp.
Central Safety Equipment Co.
Central Station Signals, Inc.
S. H. Couch Co.
Fyr-Fyter Co.
Gamewell Co.
General Fire Extinguisher Corp.
Globe Automatic Sprinkler
(Fyr-Fyter Co.)
Grinnell Co.
Independent Protection Co.
Walter Kidde & Co.
National Foam System, Inc.
Notifier Corp.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Pyrotronics Div., Baker Industries
Raisler Sprinkler Div., Raisler Corp.
Reliable Automatic Sprinkler Co.
Rockwood Sprinkler Co.
SAFA Alarm (Fyr-Fyter Co.)
M. L. Snyder & Sons, Inc.
Star Sprinkler Corp.
Viking Corp.

FIRE DOORS

Doors

Globe Automatic Sprinkler
(Fyr-Fyter Co.)
Kinnear Mfg. Co.
R. C. Mahon Co.
Overly Mfg. Co.

Door Controls

Automatic Sprinkler Corp. of America
Notifier Corp.
Rockwood Sprinkler Co.

Door-Opening Hardware

Vonnegut Hardware Co.,
Von Duprin Div.

FIRE-RESISTANT FLUIDS

Celanese Chemical Co., a division
of Celanese Corp. of America
W. S. Darley & Co.
E. F. Houghton & Co.
Monsanto Chemical Co.
Shell Oil Co.
Union Carbide Chemicals Co.

FIRST AID SUPPLIES

Burn Dressings

E. D. Bullard Co.
Chesebrough-Pond's, Inc.
Davis Emergency Equipment Co.
A. E. Halperin Co.
Industrial Products Co.
Medical Supply Co.
Mine Safety Appliances Co.
Pac-Kit Co.

Burn Medicants

E. D. Bullard Co.
Carbisulphoil Co.
Davis Emergency Equipment Co.
A. E. Halperin Co.
Industrial Products Co.
Medical Supply Co.
Mine Safety Appliances Co.
Pac-Kit Co.

First Aid Kits

American Optical Co.
E. D. Bullard Co.
Davis Emergency Equipment Co.
A. E. Halperin Co.
Industrial Products Co.
Medical Supply Co.
Mine Safety Appliances Co.
Pac-Kit Co.

Splints

Orthopedic Frame Co.
Timmins Splint Co.

FOAM

Chemical

Akron Brass Mfg. Co.
W. D. Allen Mfg. Co.
American LaFrance
Buffalo Fire Appliances (Fyr-Fyter Co.)
Elkhart Brass Mfg. Co.

continued on next page

Directory of Products

continued from page 71

Fyr-Fyter Co.
General Fire Extinguisher Corp.
Howe Fire Apparatus Co.
Walter Kidde & Co.
National Foam System, Inc.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Rockwood Sprinkler Co.
M. L. Snyder & Son, Inc.

Generators

American LaFrance
Cardox Div., Chemetron Corp.
Hale Fire Pump Co.
Howe Fire Apparatus Co.
National Foam System, Inc.
Pyrene—C-O-Two (Fyr-Fyter Co.)
M. L. Snyder & Son, Inc.

Liquid

Akron Brass Mfg. Co.
American LaFrance
Automatic Sprinkler Corp. of America
General Fire Extinguisher Corp.
Globe Automatic Sprinkler
(Fyr-Fyter Co.)
National Foam System, Inc.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Rockwood Sprinkler Co.
M. L. Snyder & Son, Inc.

Pumps

American Fire Pump Co.
John Bean Div.,
Food Machinery & Chemical Corp.
Cardox Div., Chemetron Corp.
W. S. Darley & Co.
Hale Fire Pump Co.
National Foam System, Inc.
Pyrene—C-O-Two (Fyr-Fyter Co.)

GAS DETECTORS

Davis Emergency Equipment Co.
Johnson-Williams, Inc.
Mine Safety Appliances Co.

HOSE

Chemical

W. D. Allen Mfg. Co.
American LaFrance
American Rubber Mfg. Co.
Bi-Lateral Fire Hose Co.
Boston Woven Hose & Rubber Div.,
American Biltrite Rubber Co.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Fabric Fire Hose Co.
Fire Chex Corp.
Fyr-Fyter Co.
General Fire Extinguisher Corp.
Goodall Rubber Co.
B. F. Goodrich Industrial Products Co.
Goodyear Tire & Rubber Co.
Hewitt-Robins, Inc., Hewitt Rubber Div.
Mercer Rubber Co.
National Foam System, Inc.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Raybestos-Manhattan, Inc.
Republic Rubber Div.,
Lee Rubber & Tire Corp.
Seco Mfg., Inc.
M. L. Snyder & Son, Inc.
Thermoid Div., H. K. Porter, Inc.

Cotton

W. D. Allen Mfg. Co.
American LaFrance
American Rubber Mfg. Co.
Bi-Lateral Fire Hose Co.
Blaze Guard Mfg. Co.
Boston Woven Hose & Rubber Div.,
American Biltrite Rubber Co.
John Bean Div.,
Food Machinery & Chemical Corp.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Elkhart Brass Mfg. Co.
Fabric Fire Hose Co.
Fire Chex Corp.
Fyr-Fyter Co.
General Fire Extinguisher Corp.
Goodall Rubber Co.
B. F. Goodrich Industrial Products Co.
Goodyear Tire & Rubber Co.
Hewitt-Robins, Inc., Hewitt Rubber Div.
Mercer Rubber Co.
National Foam System, Inc.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Raybestos-Manhattan, Inc.
Republic Rubber Div.,
Lee Rubber & Tire Corp.
Seco Mfg., Inc.
M. L. Snyder & Son, Inc.
Thermoid Div., H. K. Porter, Inc.
Wirt & Knox Mfg. Co.

High-Pressure

W. D. Allen Mfg. Co.
American LaFrance
American Rubber Mfg. Co.
John Bean Div.,
Food Machinery & Chemical Corp.
Bi-Lateral Fire Hose Co.
Boston Woven Hose & Rubber Div.,
American Biltrite Rubber Co.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Fabric Fire Hose Co.
Federal Fire Hose Mfg. Co.
Fire Chex Corp.
Fyr-Fyter Co.
General Fire Extinguisher Corp.
Goodall Rubber Co.
B. F. Goodrich Industrial Products Co.
Goodyear Tire & Rubber Co.
Hewitt-Robins, Inc., Hewitt Rubber Div.
Mercer Rubber Co.
National Foam System, Inc.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Raybestos-Manhattan, Inc.
Republic Rubber Div.,
Lee Rubber & Tire Corp.
M. L. Snyder & Son, Inc.
Thermoid Div., H. K. Porter, Inc.
Wirt & Knox Mfg. Co.

Suction

W. D. Allen Mfg. Co.
American LaFrance
American Rubber Mfg. Co.
John Bean Div.,
Food Machinery & Chemical Corp.
Bi-Lateral Fire Hose Co.
Boston Woven Hose & Rubber Div.,
American Biltrite Rubber Co.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Fabric Fire Hose Co.
Fire Chex Corp.
Fyr-Fyter Co.
General Fire Extinguisher Corp.
Goodall Rubber Co.
B. F. Goodrich Industrial Products Co.
Goodyear Tire & Rubber Co.
Hewitt-Robins, Inc., Hewitt Rubber Div.
Howe Fire Apparatus Co.
Mercer Rubber Co.
National Foam System, Inc.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Raybestos-Manhattan, Inc.
Republic Rubber Div.,
Lee Rubber & Tire Corp.
M. L. Snyder & Son, Inc.
Thermoid Div., H. K. Porter, Inc.
U. S. Rubber Co.
Wirt & Knox Mfg. Co.

Synthetic

W. D. Allen Mfg. Co.
American LaFrance
American Rubber Mfg. Co.
Bi-Lateral Fire Hose Co.
Boston Woven Hose & Rubber Div.,
American Biltrite Rubber Co.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Fabric Fire Hose Co.
Fyr-Fyter Co.
Goodall Rubber Co.
B. F. Goodrich Industrial Products Co.
Goodyear Tire & Rubber Co.
Hewitt-Robins, Inc., Hewitt Rubber Div.
Mercer Rubber Co.
National Foam System, Inc.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Raybestos-Manhattan, Inc.
Republic Rubber Div.,
Lee Rubber & Tire Corp.
M. L. Snyder & Son, Inc.
Thermoid Div., H. K. Porter, Inc.
U. S. Rubber Co.
Wirt & Knox Mfg. Co.

Unlined Linen

W. D. Allen Mfg. Co.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Elkhart Brass Mfg. Co.
Federal Fire Hose Mfg. Co.
Fyr-Fyter Co.
General Fire Extinguisher Corp.
Goodall Rubber Co.
National Foam System, Inc.
Chas. Niedner's Sons Co.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Seco Mfg., Inc.
M. L. Snyder & Son, Inc.
Wirt & Knox Mfg. Co.

HOSE ACCESSORIES

Adapters

Akron Brass Mfg. Co.
W. D. Allen Mfg. Co.
American LaFrance Corp.
American Rubber Mfg. Co.
B & M Siren Mfg. Co.
Bar-Way Mfg. Co.
John Bean Div.,
Food Machinery & Chemical Corp.
Buckeye Machine Products Corp.

Buffalo Fire Appliances (Fyr-Fyter Co.)
W. S. Darley & Co.
Samuel Eastman Co.
Elkhart Brass Mfg. Co.
Fire Chex Corp.
Fyr-Fyter Co.
Hewitt-Robins, Inc., Hewitt Rubber Div.
Howe Fire Apparatus Co.
Powhatan Brass & Iron Works, Inc.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Rockwood Sprinkler Co.
Seco Mfg., Inc.
M. L. Snyder & Son, Inc.
Thermoid Div., H. K. Porter, Inc.
Western Fire Equipment Co.
Wirt & Knox Mfg. Co.
Wooster Brass (Fyr-Fyter Co.)

Couplings

Akron Brass Mfg. Co.
W. D. Allen Mfg. Co.
American LaFrance
American Rubber Mfg. Co.
Bar-Way Mfg. Co.
John Bean Div.,
Food Machinery & Chemical Corp.
Boston Woven Hose & Rubber Div.,
American Biltrite Rubber Co.
Buckeye Machine Products Corp.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Samuel Eastman Co.
Elkhart Brass Mfg. Co.
Federal Fire Hose Mfg. Co.
Fire Chex Corp.
Fyr-Fyter Co.
Goodall Rubber Co.
B. F. Goodrich Industrial Products Co.
Hewitt-Robins, Inc., Hewitt Rubber Div.
Howe Fire Apparatus Co.
Powhatan Brass & Iron Works, Inc.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Seco Mfg., Inc.
M. L. Snyder & Son, Inc.
Thermoid Div., H. K. Porter, Inc.
Wirt & Knox Mfg. Co.
Wooster Brass (Fyr-Fyter Co.)

Expanders

Akron Brass Mfg. Co.
W. D. Allen Mfg. Co.
Buckeye Machine Products Corp.
Buffalo Fire Appliances (Fyr-Fyter Co.)
W. S. Darley & Co.
Samuel Eastman Co.
Elkhart Brass Mfg. Co.
Fyr-Fyter Co.
Hewitt-Robins, Inc., Hewitt Rubber Div.
Howe Fire Apparatus Co.
Powhatan Brass & Iron Works, Inc.
Pyrene—C-O-Two (Fyr-Fyter Co.)
M. L. Snyder & Son, Inc.
Wooster Brass (Fyr-Fyter Co.)

Spanners

Akron Brass Mfg. Co.
W. D. Allen Mfg. Co.
American LaFrance
Atlas Safety Equipment Co.
Bar-Way Mfg. Co.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Elkhart Brass Mfg. Co.
Fyr-Fyter Co.
B. F. Goodrich Industrial Products Co.
Howe Fire Apparatus Co.
Powhatan Brass & Iron Works, Inc.
Pyrene—C-O-Two (Fyr-Fyter Co.)
M. L. Snyder & Son, Inc.
Western Fire Equipment Co.
Wirt & Knox Mfg. Co.
Wooster Brass (Fyr-Fyter Co.)

Valves

Akron Brass Mfg. Co.
W. D. Allen Mfg. Co.
Buckeye Machine Products Corp.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Samuel Eastman Co.
Elkhart Brass Mfg. Co.
Fyr-Fyter Co.
Grinnell Co.
Howe Fire Apparatus Co.
Powhatan Brass & Iron Works, Inc.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Rockwood Sprinkler Co.
Seco Mfg., Inc.
M. L. Snyder & Son, Inc.
Wirt & Knox Mfg. Co.
Wooster Brass (Fyr-Fyter Co.)

Wrenches

Akron Brass Mfg. Co.
W. D. Allen Mfg. Co.
American LaFrance
American Rubber Mfg. Co.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Elkhart Brass Mfg. Co.
Fyr-Fyter Co.
Hewitt-Robins, Inc., Hewitt Rubber Div.
Howe Fire Apparatus Co.
Powhatan Brass & Iron Works, Inc.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Seco Mfg., Inc.
M. L. Snyder & Son, Inc.
S-T Hydrant Wrench Co.

continued on next page

Make your fire fighting more effective with this *close-approach* and *fire entry* equipment

The famous **WHEELER FIRE KING**
. . . unmatched for fire entry

Sturdy, 3-ply fire entry suit. Famous Tropic-Weave underwriter's grade aluminized* asbestos as outer layer. 100% wool middle layer. Neoprene coated fiberglas inner layer is vapor and liquid barrier against acids, live steam, etc. Hard hat built into helmet . . . pyrex vision piece . . . federally approved one-piece zipper . . . ample room for *air* pack inside. The standard for industrial and municipal departments. Ask your distributor or write.

* "Scotch-Shield"

PROXIMITY SUITS Underwriter's grade aluminized bunker coats, pants, helmets, boot covers and gloves. Ideal for close-in work.

POWER MEGAPHONES Issue effective commands. Powerful transistor units. 3 styles...pin-point or flare sound patterns.

BLANKETS in Heat-Resistant Materials Durable weather resistant case with fast-release door; wall mounting rings and sturdy carrying handle.

SEND FOR FREE COPY OF FIRE FLYER

PROTECTIVE WHEELER APPAREL

WHEELER

WHEELER PROTECTIVE APPAREL, INC.
228 W. Huron Street • Chicago 10, Illinois
SUperior 7-1156

Circle No. 64 on reader service card

continued from page 73

Western Fire Equipment Co.
Wirt & Knox Mfg. Co.
Wooster Brass (Fyr-Fyter Co.)

HOSE APPLIANCES

Clamps

Akron Brass Mfg. Co.
W. D. Allen Mfg. Co.
American LaFrance
American Rubber Mfg. Co.
Boston Woven Hose & Rubber Div., American Biltrite Rubber Co.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Fyr-Fyter Co.
Howe Fire Apparatus Co.
Powhatan Brass & Iron Works, Inc.
Pyrene—C-O-Two (Fyr-Fyter Co.)
M. L. Snyder & Son, Inc.
Wooster Brass (Fyr-Fyter Co.)

Expansion Rings

Akron Brass Mfg. Co.
W. D. Allen Mfg. Co.
American Rubber Mfg. Co.
Boston Woven Hose & Rubber Div., American Biltrite Rubber Co.
Buckeye Machine Products Corp.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Elkhart Brass Mfg. Co.
Fyr-Fyter Co.
B. F. Goodrich Industrial Products Co.
Howe Fire Apparatus Co.
Powhatan Brass & Iron Works, Inc.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Seco Mfg., Inc.
M. L. Snyder & Son, Inc.
Thermoid Div., H. K. Porter, Inc.
Western Fire Equipment Co.
Wirt & Knox Mfg. Co.
Wooster Brass (Fyr-Fyter Co.)

Holders

Akron Brass Mfg. Co.
W. D. Allen Mfg. Co.
American LaFrance
Samuel Eastman Co.
Elkhart Brass Mfg. Co.
Fyr-Fyter Co.
Howe Fire Apparatus Co.
Powhatan Brass & Iron Works, Inc.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Rockwood Sprinkler Co.
M. L. Snyder & Son, Inc.
Wooster Brass (Fyr-Fyter Co.)

Increasers

Akron Brass Mfg. Co.
W. D. Allen Mfg. Co.
American LaFrance
W. S. Darley & Co.
Samuel Eastman Co.
Elkhart Brass Mfg. Co.
Fyr-Fyter Co.
Howe Fire Apparatus Co.
Powhatan Brass & Iron Works, Inc.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Wirt & Knox Mfg. Co.

Reducers

Akron Brass Mfg. Co.
W. D. Allen Mfg. Co.
American LaFrance
Bar-Way Mfg. Co.
Buckeye Machine Products Corp.
W. S. Darley & Co.
Samuel Eastman Co.
Elkhart Brass Mfg. Co.
Fyr-Fyter Co.
Howe Fire Apparatus Co.
Powhatan Brass & Iron Works, Inc.
M. L. Snyder & Son, Inc.
Western Fire Equipment Co.
Wirt & Knox Mfg. Co.
Wooster Brass (Fyr-Fyter Co.)

Siamese Fittings

Akron Brass Mfg. Co.
W. D. Allen Mfg. Co.
American LaFrance
Buckeye Machine Products Corp.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Samuel Eastman Co.
Elkhart Brass Mfg. Co.
Fire Protection Co.
Fyr-Fyter Co.
Howe Fire Apparatus Co.
F. N. McIntire Co.
Powhatan Brass & Iron Works, Inc.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Seco Mfg., Inc.
M. L. Snyder & Son, Inc.
Western Fire Equipment Co.
Wirt & Knox Mfg. Co.
Wooster Brass (Fyr-Fyter Co.)

HOSE CLEANERS

Bi-Lateral Fire Hose Co.

HOSE STORAGE

Carts

S. G. Adams Co.
W. D. Allen Mfg. Co.
American Rubber Mfg. Co.
Fyr-Fyter Co.
Powhatan Brass & Iron Works, Inc.
M. L. Snyder & Son, Inc.
Wirt & Knox Mfg. Co.

Drying Cabinets

Circul-Air Corp.
Neep Equipment Co.

Racks

S. G. Adams Co.
W. D. Allen Mfg. Co.
American Rubber Mfg. Co.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Circul-Air Corp.
Elkhart Brass Mfg. Co.
Fyr-Fyter Co.
General Fire Extinguisher Corp.
Walter Kidde & Co.
Powhatan Brass & Iron Works, Inc.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Seco Mfg., Inc.
M. L. Snyder & Son, Inc.
Wirt & Knox Mfg. Co.

Reels

S. G. Adams Co.
W. D. Allen Mfg. Co.
American Fire Apparatus Co.
American Rubber Mfg. Co.
Ardmore Products
John Bean Div., Food Machinery & Chemical Corp.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Elkhart Brass Mfg. Co.
Fyr-Fyter Co.
General Fire Extinguisher Corp.
Clifford B. Hannay & Son, Inc.
Walter Kidde & Co.
Powhatan Brass & Iron Works, Inc.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Sanford Fire Equipment Corp.
Seco Mfg. Co.
M. L. Snyder & Son, Inc.
Wirt & Knox Mfg. Co.

Storage Cabinets

S. G. Adams Co.
W. D. Allen Mfg. Co.
Automatic Sprinkler Corp. of America
Circul-Air Corp.
Elkhart Brass Mfg. Co.
Fyr-Fyter Co.
General Fire Extinguisher Corp.
Globe Automatic Sprinkler (Fyr-Fyter Co.)
Seco Mfg., Inc.
M. L. Snyder & Son, Inc.
Van Loon Industries, Inc.
Wirt & Knox Mfg. Co.

IDENTIFICATION

American Emblem Co.
Award Incentives, Inc.
V. H. Blackinton Co.
C. G. Braxmar Co.
Cairns & Brother, Inc.
Dieges & Clust
Fyr-Fyter Co.
Johnson-National Insignia Co.
Metal Arts Co.
National Trophy Sales, Inc.
J. F. Novak Co.
Sargent-Sowell, Inc.
Schwerdtle Stamp Co.
Williams Jewelry & Mfg. Co.
Wooster Brass (Fyr-Fyter Co.)

LADDERS

Metal

Aluminum Ladder Co.
American LaFrance
John Bean Div., Food Machinery & Chemical Corp.
Duo-Safety Ladder Corp.
Fyr-Fyter Co.
Goshen Mfg. Co.

Charles Gratz Fire Protection Co.
Howe Fire Apparatus Co.
Maxim Motors Co.
Metallic Ladder Mfg. Corp.
Newark Ladder & Bracket Co.
Peter Pirsch & Sons Co.
Seagrave Corp.
M. L. Snyder & Son, Inc.

Rope

Atlas Safety Equipment Co.
Newark Ladder & Bracket Co.

Wood

American LaFrance
John Bean Div.,
Food Machinery & Chemical Corp.
Duo-Safety Ladder Corp.
Goshen Mfg. Co.
Howe Fire Apparatus Co.
Maxim Motor Co.
Newark Ladder & Bracket Co.
Peter Pirsch & Sons Co.
Seagrave Corp.

LIGHTS

Emergency Lighting

American Optical Co.
Carpenter Mfg. Co.
Electric Cord Co.
Exide Industrial Marketing Div.,
Electric Storage Battery Co.
Falcon Alarm Co.
Howe Fire Apparatus Co.
Maxim Motor Co.
Julian A. McDermott Corp.
Perkins Battery Co.
Pyle-National Co.
M. L. Snyder & Son, Inc.
U-C Lite Mfg. Co.

Flares

Falcon Alarm Co.
Federal Sign & Signal Corp.
Julian A. McDermott Corp.
North American Signal Co.
Perkins Battery Co.
U-C Lite Mfg. Co.

Flood

Benjamin Div., Thomas Industries
Carpenter Mfg. Co.
Exide Industrial Marketing Div.,
Electric Storage Battery Co.
Howe Fire Apparatus Co.
Koehler Mfg. Co.
Mars Signal Light Co.
Julian A. McDermott Corp.
Mine Safety Appliances Co.
New Oxford Industries, Inc.
Perkins Battery Co.
Pyle-National Co.
Safety First Supply Co.

Hand

Stewart R. Browne Mfg. Co.
Carpenter Mfg. Co.
W. S. Darley & Co.
Davis Emergency Equipment Co.
Exide Industrial Marketing Div.,
Electric Storage Battery Co.
Howe Fire Apparatus Co.
Justrite Mfg. Co.
Koehler Mfg. Co.
Julian A. McDermott Corp.
McGill Mfg. Co.
Mine Safety Appliances Co.
New Oxford Industries, Inc.
Perkins Battery Co.
Pyle-National Co.
U-C Lite Mfg. Co.

Searchlights

Carpenter Mfg. Co.
Davis Emergency Equipment Co.
Howe Fire Apparatus Co.
Koehler Mfg. Co.
Mars Signal Light Co.
Julian A. McDermott Corp.
Perkins Battery Co.

Systems Protection

Independent Protection Co.

Warning

Buckeye Machine Products Corp.
Carpenter Mfg. Co.
Davis Emergency Equipment Co.
Exide Industrial Marketing Div.,
Electric Storage Battery Co.
Falcon Alarm Co.
Federal Sign & Signal Corp.
Howe Fire Apparatus Co.
Justrite Mfg. Co.
Julian A. McDermott Corp.
Mars Signal Light Co.
New Oxford Industries, Inc.

continued on next page

you can always count on dependability

E&J

THE NEW EMERGIKIT II
RESUSCITATOR • INHALATOR • ASPIRATOR

Precision-built to save the seconds that save lives, the dependable Emergikit II is a product of 40 years' expert craftsmanship. Pre-set pressures and simple controls permit immediate use. The entire regulator assembly is protected by the longer case. Compact — only 16″ long, 7″ wide and 10″ high; weighs only 26 lbs., including the cylinder. Balanced for easy carrying—sets up in seconds.

Ask your E&J dealer for a demonstration or write Dept. OH-6.

OHIO Ohio Chemical

OHIO CHEMICAL & SURGICAL EQUIPMENT CO., MADISON, WIS. • OHIO CHEMICAL PACIFIC CO., BERKELEY, CALIF. • OHIO CHEMICAL CANADA LIMITED, TORONTO, ONT. • AIRCO COMPANY INTERNATIONAL, NEW YORK CITY (Divisions or subsidiaries of Air Reduction Company, Inc.)

Circle No. 65 on reader service card

Directory of Products

continued from page 75

North American Signal Co.
Perkins Battery Co.
Pyle-National Co.
U-C Lite Mfg. Co.

LUBRICATING EQUIPMENT

Eagle Mfg. Co.

MOTOR APPARATUS

Ambulances

Automotive Conversion Corp.
Christopher Co.
Hess & Eisenhardt Co.
International Harvester Co., Motor Truck Div.
Miller-Meteor Div., Divco-Wayne Corp.
National Coaches, Inc.
Sharpsville Steel Fabricators, Inc.
Shop of Siebert Associates, Inc.
Superior Coach Corp.

CO_2 Trucks

American Fire Apparatus Co.
American LaFrance
Boardman Co.
Cardox Div., Chemetron Corp.
General Fire Extinguisher Corp.
Howe Fire Apparatus Co.
Walter Kidde & Co.
Maxim Motor Co.
Peter Pirsch & Sons Co.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Seco Mfg., Inc.
Universal Fire Apparatus Corp.
Victor Adding Machine Co.

Dry Chemical Trucks

Ansul Chemical Co.
Walter Kidde & Co.

Foam Trucks

American Fire Apparatus Co.
American LaFrance
Boardman Co.
Cardox Div., Chemetron Corp.
Christopher Co.
General Fire Extinguisher Corp.
Howe Fire Apparatus Co.
Walter Kidde & Co.
Mack Trucks, Inc.
Maxim Motor Co.
National Foam System, Inc.
Peter Pirsch & Sons Co.
Progress Mfg. Co.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Rockwood Sprinkler Co.
Seagrave Corp.
Seco Mfg., Inc.
W. J. Thiele & Sons Co.
Universal Fire Apparatus Corp.

Pumpers

American Fire Apparatus Co.
American LaFrance
John Bean Div., Food Machinery & Chemical Corp.
Blitz Buggy Co.
Boardman Co.
Christopher Co.
W. S. Darley & Co.
Fire Trucks, Inc.
General Fire Extinguisher Corp.
Howe Fire Apparatus Co.
Mack Trucks, Inc.
Maxim Motor Co.
Neep Equipment Co.
Oren Roanoke Corp.
Peter Pirsch & Sons Co.
Progress Mfg. Co.
Sanford Fire Equipment Corp.
Seagrave Corp.
Seco Mfg., Inc.
Sharpsville Steel Fabricators, Inc.
W. J. Thiele & Sons Co.
Universal Fire Apparatus Co.
Valley Fire Truck Co.

Tank Trucks

American Fire Apparatus Co.
American LaFrance
Boardman Co.
Christopher Co.
W. S. Darley & Co.
Fire Trucks, Inc.
Howe Fire Apparatus Co.
Mack Trucks, Inc.

KOOLPADS are for the company that cannot afford wasted time and stopped production

Here's a perfect example:

Frank is a good worker, but it's hot.
He's sweating. He stops working.
Takes out his handkerchief.
Takes off his glasses.
Wipes his forehead.
Wipes his glasses.
Replaces his glasses.
Replaces his handkerchief.
Returns to work.

That stop costs money! Multiply it by 1) the number of workers in your plant and 2) the number of stops per day . . . and you'll see BIG money is involved.

For 16c per worker you can prevent "Sweat Stop" waste. One cellulose sponge Koolpad soaks up to six times its weight in sweat. It raises efficiency, cuts costs and avoids safety hazards of sweat streaked glasses. Best of all, a Koolpad can be rinsed quickly and used again and again.

If you think those benefits are worth looking into, write today for a free Koolpad. Try it yourself first, around the house.

STANDARD SAFETY EQUIPMENT COMPANY
431 NORTH QUENTIN ROAD • PALATINE, ILLINOIS

13 HECKEL ST.
BELLEVILLE 7, N.J.

12921 W. WASHINGTON BLVD.
LOS ANGELES 66, CALIF.

855 EAST 152nd STREET
CLEVELAND 10, OHIO

Circle No. 66 on reader service card

Maxim Motor Co.
National Foam System, Inc.
Neep Equipment Co.
Oren Roanoke Corp.
Peter Pirsch & Sons Co.
Progress Mfg. Co.
Sanford Fire Equipment Corp.
Seagrave Corp.
Seco Mfg., Inc.
Sharpsville Steel Fabricators, Inc.
Universal Fire Apparatus Co.

Trailer Equipment

American LaFrance
Ansul Chemical Co.
John Bean Div.,
Food Machinery & Chemical Corp.
Cardox Div., Chemetron Corp.
Fyr-Fyter Co.
Howe Fire Apparatus Co.
Kalamazoo Mfg. Co.
Walter Kidde & Co.
Mack Trucks, Inc.
Maxim Motor Co.
National Foam System, Inc.
Porto Pump, Inc.
Pyrene—C-O-Two (Fyr-Fyter Co.)
Rockwood Sprinkler Co.
Sanford Fire Equipment Corp.
Universal Fire Apparatus Corp.
Wirt & Knox Mfg. Co.

Utility Trucks

Automotive Conversion Corp.
Boardman Co.
Christopher Co.
Shop of Siebert Associates, Inc.

NOZZLES

Cellar Pipe

Akron Brass Mfg. Co.
American LaFrance
Buckeye Machine Products Corp.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Elkhart Brass Mfg. Co.
Fyr-Fyter Co.
Howe Fire Apparatus Co.
F. N. McIntire Co.
Powhatan Brass & Iron Works, Inc.
Pyrene—C-O Two (Fyr-Fyter Co.)
Rockwood Sprinkler Co.
Western Fire Equipment Co.
Wooster Brass (Fyr-Fyter Co.)

Deluge Sets

Akron Brass Mfg. Co.
American LaFrance
Automatic Sprinkler Corp. of America
Blaw-Knox Co.,
Automatic Sprinkler Dept.
Buckeye Machine Products Corp.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Samuel Eastman Co.
Elkhart Brass Mfg. Co.
Fyr-Fyter Co.
Globe Automatic Sprinkler
(Fyr-Fyter Co.)
Grinnell Co.
Howe Fire Apparatus Co.
Powhatan Brass & Iron Works, Inc.
Pyrene—C-O Two (Fyr-Fyter Co.)
Raisler Sprinkler Div., Raisler Corp.
Reliable Automatic Sprinkler Co.
Rockwood Sprinkler Co.
Star Sprinkler Corp.
Wooster Brass (Fyr-Fyter Co.)

Foam

Akron Brass Mfg. Co.
American LaFrance
Army's Fire Service
Automatic Sprinkler Corp. of America
John Bean Div.,
Food Machinery & Chemical Corp.
Blaw-Knox Co.,
Automatic Sprinkler Dept.
Buckeye Machine Products Corp.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Cardox Div., Chemetron Corp.
Elkhart Brass Mfg. Co.
Fyr-Fyter Co.
Globe Automatic Sprinkler
(Fyr-Fyter Co.)
Grinnell Co.
Howe Fire Apparatus Co.
F. N. McIntire Co.
F. E. Myers & Bro. Co.
National Foam System, Inc.
Pyrene—C-O Two (Fyr-Fyter Co.)
Rockwood Sprinkler Co.
M. L. Snyder & Son, Inc.
Star Sprinkler Corp.
Wooster Brass (Fyr-Fyter Co.)

Fog

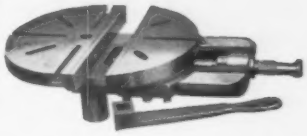
Akron Brass Mfg. Co.
W. D. Allen Mfg. Co.
American Fire Apparatus Co.

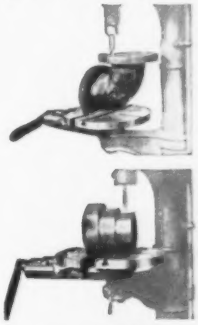
continued on next page

Prevent Accidents — Cut Costs!

USE THE **MODERN Safety Drill Table**

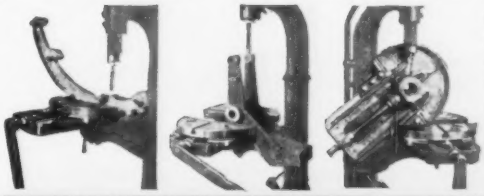
Your maintenance operator tries to hold a small piece for drilling a small hole — and loses a finger. Or, he makes a complicated set-up — which slips. SAFETY in miscellaneous drilling operations pays big dividends.





With the Modern Safety Drill Table, set-ups are **safe**, positive and fast. This table handles odd, irregular shapes without V-blocks, clamps or parallels — as well as dangerous, hand held small jobs. You just drop in the work and drill. Sizes for every need from 8" to 27½" diameters. Guaranteed to save its cost in labor alone every 6 months.

FREE TRIAL OFFER



Let us put a Safety Drill Table in your plant, freight prepaid. Use it 30 days. Ship it back, freight collect, if you are not enthusiastic.

Literature on Request

MODERN MACHINE TOOL CO.
2005 LOSEY STREET JACKSON, MICHIGAN

Circle No. 67 on reader service card

Directory of Products

continued from page 77

American LaFrance
American Rubber Mfg. Co.
Army's Fire Service
Automatic Sprinkler Corp. of America
John Bean Div.,
Food Machinery & Chemical Corp.
Blaw-Knox Co.,
Automatic Sprinkler Dept.
Buckeye Machine Products Corp.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Cardox Div., Chemetron Corp.
Elkhart Brass Mfg. Co.
Federal Fire Hose Mfg. Co.
Fire Chex Corp.
Fyr-Fyter Co.
General Fire Extinguisher Corp.
Globe Automatic Sprinkler
(Fyr-Fyter Co.)
Grinnell Co.
Howe Fire Apparatus Co.
F. N. McIntire Co.
F. E. Myers & Bro. Co.
Powhatan Brass & Iron Works, Inc.
Raisler Sprinkler Div., Raisler Corp.
Reliable Automatic Sprinkler Co.
Rockwood Sprinkler Co.
Seco Mfg., Inc.
M. L. Snyder & Son, Inc.
Star Sprinkler Corp.
Western Fire Equipment Co.
Wirt & Knox Mfg. Co.
Wooster Brass (Fyr-Fyter Co.)

Heavy Stream

Akron Brass Mfg. Co.
American LaFrance
American Rubber Mfg. Co.
Buckeye Machine Products Corp.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Samuel Eastman Co.
Elkhart Brass Mfg. Co.
Fyr-Fyter Co.
Howe Fire Apparatus Co.
F. N. McIntire Co.
F. E. Myers & Bro. Co.
Powhatan Brass & Iron Works, Inc.
Rockwood Sprinkler Co.
M. L. Snyder & Son, Inc.
Wirt & Knox Mfg. Co.
Wooster Brass (Fyr-Fyter Co.)

Play Pipes

Akron Brass Mfg. Co
W. D. Allen Mfg. Co.
American LaFrance
American Rubber Mfg. Co.
Buckeye Machine Products Corp.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Samuel Eastman Co.
Elkhart Brass Mfg. Co.
Federal Fire Hose Mfg. Co.
Fyr-Fyter Co.
Howe Fire Apparatus Co.
F. N. McIntire Co.
Powhatan Brass & Iron Works, Inc.
Pyrene—C-O Two (Fyr-Fyter Co.)
Rockwood Sprinkler Co.
Seco Mfg., Inc.
M. L. Snyder & Son, Inc.
Western Fire Equipment Co.
Wirt & Knox Mfg. Co.
Wooster Brass (Fyr-Fyter Co.)

Shutoff

Akron Brass Mfg. Co.
W. D. Allen Mfg. Co.
American LaFrance
American Rubber Mfg. Co.
Buckeye Machine Products Corp.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Samuel Eastman Co.
Elkhart Brass Mfg. Co.
Federal Fire Hose Mfg. Co.
Fyr-Fyter Co.
Howe Fire Apparatus Co.
F. N. McIntire Co.
Powhatan Brass & Iron Works, Inc.
Pyrene—C-O Two (Fyr-Fyter Co.)
Rockwood Sprinkler Co.
M. L. Snyder & Son, Inc.
Western Fire Equipment Co.
Wirt & Knox Mfg. Co.
Wooster Brass (Fyr-Fyter Co.)

Spray

Akron Brass Mfg. Co.
W. D. Allen Mfg. Co.
American LaFrance
Automatic Sprinkler Corp. of America
John Bean Div.,
Food Machinery & Chemical Corp.
Boston Woven Hose & Rubber Div.,
American Biltrite Rubber Co.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Cardox Div., Chemetron Corp.
Central Safety Equipment Co.
Samuel Eastman Co.
Elkhart Brass Mfg. Co.
Fyr-Fyter Co.
Globe Automatic Sprinkler
(Fyr-Fyter Co.)
Grimes Sprinkler Div., Raisler Corp.
Grinnell Co.
Howe Fire Apparatus Co.
F. N. McIntire Co.
F. E. Myers & Bro. Co.
National Foam System, Inc.
Parco Products Co.
Powhatan Brass & Iron Works, Inc.
Pyrene—C-O Two (Fyr-Fyter Co.)
Raisler Sprinkler Div., Raisler Corp.
Reliable Automatic Sprinkler Co.
Rockwood Sprinkler Co.
Seco Mfg., Inc.
D. B. Smith & Co.
M. L. Snyder & Son, Inc.
Star Sprinkler Corp.
Viking Corp.
Western Fire Equipment Co.
Wirt & Knox Mfg. Co.
Wooster Brass (Fyr-Fyter Co.)

OXYGEN REVIVING APPARATUS

Airways

Draeger Corp.
J. H. Emerson Co.
Globe Industries, Inc.
Johnson & Johnson
Medical Supply Co.
Mine Safety Appliances Co.
Oxygen Equipment & Service Co.
Willson Products Div., Ray-O-Vac Co.

Inhalators

Bomgardner Mfg. Co.
Buckeye Machine Products Corp.
Cycle-Flo Co.
W. S. Darley & Co.
Davis Emergency Equipment Co.
Geo. W. Diener Mfg. Co.
Draeger Corp.
(E&J) Ohio Chemical
& Surgical Equipment Co.
J. H. Emerson Co.
Globe Industries, Inc.
Linde Co., a division
of Union Carbide Corp.
Mine Safety Appliances Co.
J. J. Monaghan Co.
Oxygen Equipment & Service Co.
Rockwood Sprinkler Co.
Safety First Supply Co.
Scott Aviation Corp.
Stephenson Corp.

Resuscitators

Bomgardner Mfg. Co.
Buckeye Machine Products Corp.
W. S. Darley & Co.
Davis Emergency Equipment Co.
Geo. W. Diener Mfg. Co.
Draeger Corp.
(E&J) Ohio Chemical
& Surgical Equipment Co.
J. H. Emerson Co.
Fyr-Fyter Co.
Globe Industries, Inc.
Metrox, Inc.
Mine Safety Appliances Co.
J. J. Monaghan Co.
Oxygen Equipment & Service Co.
Safety First Supply Co.
Stephenson Corp.

PUMPS

Fire Apparatus

American Fire Apparatus Co.
American Fire Pump Co.
American LaFrance
Barnes Mfg. Co.
John Bean Div.,
Food Machinery & Chemical Corp.
W. S. Darley & Co.
Fairbanks, Morse & Co.
General Electric Co.
General Fire Extinguisher Corp.
Gorman-Rupp Co.
Hale Fire Pump Co.
Howe Fire Apparatus Co.
Ingersoll-Rand Co.
F. E. Myers & Bro. Co.
National Alarm Corp.
Peerless Pump Div.,
Food Machinery & Chemical Corp.
Porto Pump, Inc.
Seagrave Corp.
Waterous Co.

Hand

Akron Brass Mfg. Co.
Blackmer Pump Co.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Fyr-Fyter Co.
General Fire Extinguisher Corp.
F. E. Myers & Bro. Co.
Protectoseal Co.
D. B. Smith & Co.
Tokheim Corp.
Western Fire Equipment Co.

High Pressure

American Fire Pump Co.
John Bean Div.,
Food Machinery & Chemical Corp.
W. S. Darley & Co.
Fairbanks, Morse & Co.
Gorman-Rupp Co.
Hale Fire Pump Co.
Howe Fire Apparatus Co.
Ingersoll-Rand Co.
F. E. Myers & Bro. Co.
Porto Pump, Inc.
Seagrave Corp.
Waterous Co.

Portable

American Fire Pump Co.
Barnes Mfg. Co.
John Bean Div.,
Food Machinery & Chemical Corp.
Champion Sprayer Co.
W. S. Darley & Co.
Fairbanks, Morse & Co.
Hale Fire Pump Co.
Howe Fire Apparatus Co.
F. E. Myers & Bro. Co.
Parco Products Co.
Porto Pump, Inc.
Protectoseal Co.
D. B. Smith & Co.
Tokheim Corp.

RESCUE EQUIPMENT

Atlas Safety Equipment Co.
Audio Equipment Co.
C. D. Pike & Fire Hook Mfg. Co.
Cotton Goods Mfg. Co.
Draeger Corp.
Fyrepel Products, Inc.
Gerstenslager Mfg. Co.
Globe Industries, Inc.
B. F. Goodrich Footwear & Flooring Co.
Industrial Gloves Co.
Medical Supply Co.
Mine Safety Appliances Co.
H. K. Porter, Inc.
Safety Clothing & Equipment Co.
Scott Aviation Corp.
Stebco Industries, Inc.
Wheeler Protective Apparel, Inc.

RESPIRATORY PROTECTIVE EQUIPMENT

Accessories

Acme Protection Equipment Co.
Draeger Corp.
(E&J) Ohio Chemical
& Surgical Equipment Co.
Globe Industries, Inc.
Mine Safety Appliances Co.
J. J. Monaghan Co.
Oxygen Equipment & Service Co.
Scott Aviation Corp.

Air Breathing

Acme Protection Equipment Co.
American Optical Co.
Bomgardner Mfg. Co.
E. D. Bullard Co.
Cycle-Flo Co.
Davis Emergency Equipment Co.
Draeger Corp.
(E&J) Ohio Chemical
& Surgical Equipment Co.
Globe Industries, Inc.
Mine Safety Appliances Co.
Oxygen Equipment & Service Co.
Pulmosan Safety Equipment Corp.
Scott Aviation Corp.

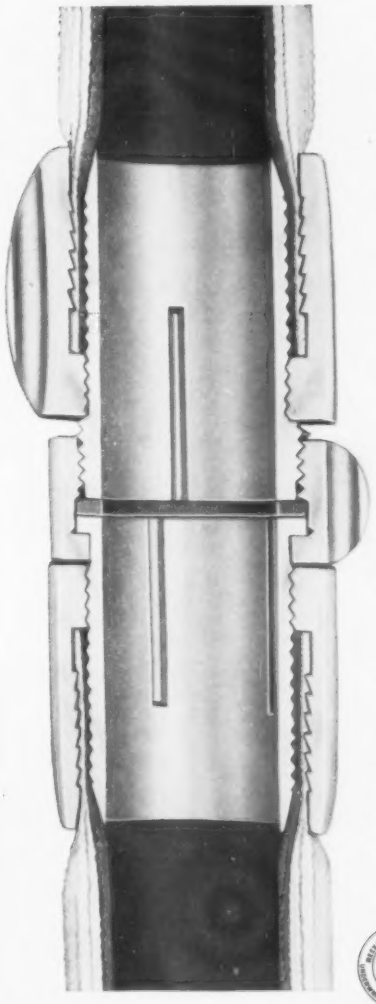
Masks

Acme Protection Equipment Co.
E. D. Bullard Co.
Davis Emergency Equipment Co.
Draeger Corp.
(E&J) Ohio Chemical
& Surgical Equipment Co.
Fyr-Fyter Co.
Globe Industries, Inc.
Mine Safety Appliances Co.
J. J. Monaghan Co.
Pulmosan Safety Equipment Corp.
Rockwood Sprinkler Co.
Safety Clothing & Equipment Co.
Scott Aviation Corp.
Willson Products Div., Ray-O-Vac Co.

Oxygen Breathing

Acme Protection Equipment Co.
Bomgardner Mfg. Co.
Cycle-Flo Co.
Davis Emergency Equipment Co.

continued on next page



Put BAR-WAY in your "specs"

THE REUSABLE HIGH PRESSURE COUPLING THAT GIVES A QUICK, SURE CONNECTION FOR ALL TYPES OF JACKETED HOSE.

The simplified streamlined design of this precision coupling, which is basically the same as that of your booster hose, guarantees full flow, full pressure and ease of handling under all conditions. Fast emergency hose repairs can also be made in the field if you specify Bar-Way for original application.

Demand Bar-Way reusable couplings on your jacketed hose and watch your efficiency go up and the cost go down.

1½", 2½", 3" and 3" x 2½" Conventional Wing Lug in production. All other standard sizes and lug styles available.

Special engineering applications on request.

TESTED for 1400 lbs. pressure and 2400 lbs. pull under full pressure.

BAR-WAY

BAR-WAY MFG. CO., STAMFORD, CONN.

Circle No. 68 on reader service card

Directory of Products

continued from page 79

Draeger Corp.
(E&J) Ohio Chemical
& Surgical Equipment Co.
Fyr-Fyter Co.
Globe Industries, Inc.
Linde Co., a division
of Union Carbide Corp.
John J. McKune & Sons Co.
Metrox, Inc.
Mine Safety Appliances Co.
J. J. Monaghan Co.
Oxygen Equipment & Service Co.
Rockwood Sprinkler Co.

Respirators

American Optical Co.
Cycle-Flo Co.
Davis Emergency Equipment Co.
Geo. W. Diener Mfg. Co.
Draeger Corp.
(E&J) Ohio Chemical
& Surgical Equipment Co.
J. H. Emerson Co.
Globe Industries, Inc.
Mine Safety Appliances Co.
J. J. Monaghan Co.
Pulmosan Safety Equipment Corp.
Rockwood Sprinkler Co.
Scott Aviation Corp.
M. L. Snyder & Son, Inc.

SAFETY CONTAINERS

Cans, Receptacles

Bennett Mfg. Co.
E. D. Bullard Co.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Geo. W. Diener Mfg. Co.
Eagle Mfg. Co.
Fyr-Fyter Co.
General Fire Extinguisher Corp.
Justrite Mfg. Co.
Protectoseal Co.
Safety Clothing & Equipment Co.
M. L. Snyder & Son, Inc.
Wirt & Knox Mfg. Co.
Witt Cornice Co.

Containers

Bennett Mfg. Co.
Central Safety Equipment Co.
General Fire Extinguisher Corp.
Justrite Mfg. Co.
Protectoseal Co.
Safety Clothing & Equipment Co.
Safety Floor Products Co.
Standard Industrial Products Co.
Witt Cornice Co.

Covers, Lids

Protectoseal Co.
Witt Cornice Co.

Oily Waste Cans

Ex-Cell Metal Products, Inc.
Justrite Mfg. Co.
Protectoseal Co.
M. L. Snyder & Son, Inc.
Witt Cornice Co.

Smoking Receptacles

Bennett Mfg. Co.
Ex-Cell Metal Products, Inc.
Notte Safety Appliances Co.
Protectoseal Co.
Safety Floor Products Co.
Standard Industrial Products Co.

Tanks

American Safety Tank Co.
Bennett Mfg. Co.
Protectoseal Co.
Wirt & Knox Mfg. Co.

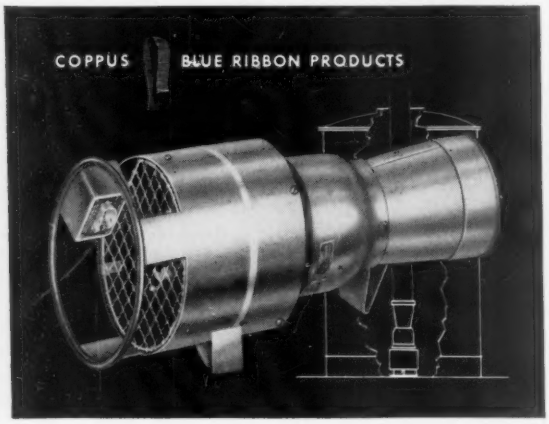
Waste Disposal Units

Bennett Mfg. Co.
E. D. Bullard Co.
Geo. W. Diener Mfg. Co.
Justrite Mfg. Co.
Protectoseal Co.
Safety Clothing & Equipment Co.
Safety Floor Products, Co.
Witt Cornice Co.

SHIELDS, COVERS

Canvas Shields

Cotton Goods Mfg. Co.
C. R. Daniels, Inc.



COPPUS "Blue Ribbon" Ventilator-Blowers are portable and easily adaptable . . . for supplying fresh air or discharging foul air or fumes. Mail coupon below for facts.

COPPUS ENGINEERING CORP.
306 Park Avenue, Worcester 10, Mass.

- ☐ in tanks, tank cars
- ☐ in underground manholes
- ☐ for exhausting welding fumes
- ☐ on boiler repair jobs
- ☐ for general man cooling
- ☐ to stir up stagnant air wherever men are working or material is drying

Name . . . . . .
Company . . . . . .
Address . . . . . .
City . . . . . .

COPPUS BLOWERS

Circle No. 57 on reader service card

DIRTY HANDS MAY MEAN

DANGER!

Keep them safe with . . .

Phlo® Waterless Cleaner. Milky white and creamy smooth. Anti-dermatitis. Contains silicones and lanolin for double protection.

Phlo Neutral Protector. An effective, non-toxic soil and bacteria barrier. Contains lanolin and silicones. Available in water soluble and waterproof types.

Practi-Kreme Skin Protector and Cleaner. Applied before work to make skin impervious to paints, lacquers and other non-water based irritants. Moistened and rubbed to a lather after work, it leaves skin pore-deep clean.

Write for Free Test Samples

The Chemical Corporation

81 WA[illegible]

Circle No. 70 on reader service card

Frommelt Industries
Fulton Cotton Mills
Fyrepel Products, Inc.
Wm. E. Hooper & Sons Co.
Industrial Gloves Co.
Industrial Products Co.
Industrial Safety Specialties Co.
Kimball Safety Products Co.
Pulmosan Safety Equipment Corp.
Safety Clothing & Equipment Co.
Singer Glove Mfg. Co.
Wheeler Protective Apparel, Inc.

Fire Shields

American LaFrance
Cotton Goods Mfg. Co.
C. R. Daniels, Inc.
Frommelt Industries
Fyrepel Products, Inc.
Industrial Gloves Co.
Industrial Products Co.
National Foam System, Inc.
Pulmosan Safety Equipment Corp.
Safety Clothing & Equipment Co.
Singer Glove Mfg. Co.
Western Fire Equipment Co.
Wheeler Protective Apparel, Inc.

Salvage Covers

Bennett Mfg. Co.
C. R. Daniels, Inc.
Frommelt Industries
Fulton Cotton Mills
Fyrepel Products, Inc.
Wm. E. Hooper & Sons Co.
Hoosier Tarpaulin & Canvas Goods Co.
Industrial Gloves Co.
Industrial Products Co.
Industrial Safety Specialties Co.
Safety Clothing & Equipment Co.
Singer Glove Mfg. Co.
M. L. Snyder & Son, Inc.
Wheeler Protective Apparel, Inc.

Welding Curtains

American Optical Co.
Bemis Bros. Bag Co.
E. D. Bullard Co.
Central Safety Equipment Co.
Cotton Goods Mfg. Co.
C. R. Daniels, Inc.
Frommelt Industries
Fulton Cotton Mills
Fyrepel Products, Inc.
Industrial Gloves Co.
Industrial Products Co.
Kimball Safety Products Co.
Pulmosan Safety Equipment Corp.
Safety Clothing & Equipment Co.
Singer Glove Mfg. Co.
Standard Safety Equipment Co.
Wheeler Protective Apparel, Inc.

SIGNS

Ad-O-Plastics
A. C. Davenport & Son, Inc.
Eastern Metal of Elmira
Elliott Service Co.
Industrial Products Co.
Mine Safety Appliances Co.
Minnesota Mining & Mfg. Co., Reflective Products Div.
National Trophy Sales, Inc.
Prairie State Products Co.
Ready Made Sign Co.
Safety Clothing & Equipment Co.
Sargent-Sowell, Inc.
Schwerdtle Stamp Co.
Standard Signs, Inc.
Stonehouse Signs, Inc.
Watchemoket Optical Co.

SMOKE DETECTORS

American District Telegraph Co.
Cardox Div., Chemetron Corp.
Central Station Signals, Inc.
Walter Kidde & Co.
Pyrene—C-O Two (Fyr-Fyter Co.)
Pyrotronics Div., Baker Industries
Randolph Laboratories, Inc.

SPRINKLER SYSTEMS

Automatic

Automatic Sprinkler Corp. of America
Blaw-Knox Co., Automatic Sprinkler Dept.
Central Station Signals, Inc.
Fire Protection Co.
Globe Automatic Sprinkler (Fyr-Fyter Co.)
Grimes Sprinkler Div., Raisler Corp.
Grinnell Co.
Raisler Sprinkler Div., Raisler Corp.
Reliable Automatic Sprinkler Co.
Rockwood Sprinkler Co.
Star Sprinkler Corp.
Viking Corp.

continued on next page

Circle No. 71 on reader service card

continued from page 81

Heads

Akron Brass Mfg. Co.
Automatic Sprinkler Corp. of America
Blaw-Knox Co.,
Automatic Sprinkler Dept.
Elkhart Brass Mfg. Co.
Fire Protection Co.
Fyr-Fyter Co.
Globe Automatic Sprinkler
(Fyr-Fyter Co.)
Grimes Sprinkler Div., Raisler Corp.
Grinnell Co.
Pyrene—C-O Two (Fyr-Fyter Co.)
Raisler Sprinkler Div., Raisler Corp.
Reliable Automatic Sprinkler Co.
Rockwood Sprinkler Co.
Star Sprinkler Corp.
Viking Corp.

Pipe

Automatic Sprinkler Corp. of America
Blaw-Knox Co.,
Automatic Sprinkler Dept.
Fire Protection Co.
Fyr-Fyter Co.
Globe Automatic Sprinkler
(Fyr-Fyter Co.)
Grinnell Co.
Pyrene—C-O Two (Fyr-Fyter Co.)
Viking Corp.

Systems

Automatic Sprinkler Corp. of America
Blaw-Knox Co.,
Automatic Sprinkler Dept.
Fire Protection Co.
Globe Automatic Sprinkler
(Fyr-Fyter Co.)
Grinnell Co.
Raisler Sprinkler Div., Raisler Corp.
Reliable Automatic Sprinkler Co.
Rockwood Sprinkler Co.
M. L. Snyder & Son, Inc.
Star Sprinkler Corp.
Viking Corp.

Valves

Automatic Sprinkler Corp. of America
Coppus Engineering Corp.
Fire Protection Co.
Globe Automatic Sprinkler
(Fyr-Fyter Co.)
Grimes Sprinkler Div., Raisler Corp.
Grinnell Co.
M & H Valve & Fittings Co.
Mueller Co.
Powhatan Brass & Iron Works, Inc.
Raisler Sprinkler Div., Raisler Corp.
Reliable Automatic Sprinkler Co.
Rockwood Sprinkler Co.
Star Sprinkler Corp.

STATIC ELECTRICITY NEUTRALIZERS

Statikil, Inc.

STRETCHERS

Bomgardner Mfg. Co.
E. D. Bullard Co.
Central Safety Equipment Co.
Davis Emergency Equipment Co.
Emergency Aids Co.
Ferno Mfg. Co.
Frank Mfg. Co.
A. E. Halperin Co.
Junkin Safety Appliance Co.
Mine Safety Appliances Co.
Medical Supply Co.
Orthopedic Frame Co.
A. Smith & Son, Inc.
Safety Clothing & Equipment Co.
Safety First Supply Co.
Washington Products Co.
Wirt & Knox Mfg. Co.

TOOLS

Axes

W. D. Allen Mfg. Co.
Atlas Safety Equipment Co.
Collins Co.
Elkhart Brass Mfg. Co.
Estwing Mfg. Co.
Howe Fire Apparatus Co.
Mann Edge Tool Co.
Powhatan Brass & Iron Works, Inc.
M. L. Snyder & Son, Inc.
Stebco Industries, Inc.
Wirt & Knox Mfg. Co.

Crowbars

Akron Brass Mfg. Co.
W. D. Allen Mfg. Co.
Elkhart Brass Mfg. Co.
Howe Fire Apparatus Co.
Powhatan Brass & Iron Works, Inc.
M. L. Snyder & Son, Inc.
Universal Fire Apparatus Corp.
Western Fire Equipment Co.
Wirt & Knox Mfg. Co.
Wooster Brass (Fyr-Fyter Co.)

Forcible Entry

Atlas Safety Equipment Co.
Akron Brass Mfg. Co.
C. D. Pike & Fire Hook Mfg. Corp.
Elkhart Brass Mfg. Co.
Fyr-Fyter Co.
H. K. Porter, Inc.
M. L. Snyder & Son, Inc.
Stebco Industries, Inc.
Wooster Brass (Fyr-Fyter Co.)

Hatchets

Atlas Safety Equipment Co.
Stebco Industries, Inc.

Hook Poles

W. D. Allen Mfg. Co.
C. D. Pike & Fire Hook Mfg. Corp.
Western Fire Equipment Co.
Wooster Brass (Fyr-Fyter Co.)

Hydrant Wrenches

Akron Brass Mfg. Co.
W. D. Allen Mfg. Co.
B & M Siren Mfg. Co.
Buffalo Fire Appliances (Fyr-Fyter Co.)
Elkhart Brass Mfg. Co.
Fyr-Fyter Co.
Howe Fire Apparatus Co.
Powhatan Brass & Iron Works, Inc.
Pyrene—C-O Two (Fyr-Fyter Co.)
M. L. Snyder & Son, Inc.
S-T Hydrant Wrench Co.
Western Fire Equipment Co.
Wirt & Knox Mfg. Co.
Wooster Brass (Fyr-Fyter Co.)

Nonsparking Tools

Ampco Metal, Inc.
Beryllium Corp.
Ingersoll-Rand Co.

Pike Poles

Akron Brass Mfg. Co.
W. D. Allen Mfg. Co.
Aluminum Ladder Co.
American LaFrance
C. D. Pike & Fire Hook Mfg. Corp.
Duo-Safety Ladder Corp.
Howe Fire Apparatus Co.
Western Fire Equipment Co.
Wooster Brass (Fyr-Fyter Co.)

WATCHCLOCK SYSTEMS

American District Telegraph Co.
Chicago Watchclock Systems
(See Detex Watchclock Corp.)
Detex Watchclock Corp.

WATCHMEN'S SERVICES

Acme Industrial Police
William J. Burns
International Detective Agency, Inc.
General Plant Protection Corp.
Pinkerton's National
Detective Agency, Inc.
Protection Engineering Corp.

WEARING APPAREL

Asbestos Clothing

American Optical Co.
E. D. Bullard Co.
Eastern Metal of Elmira
Frommelt Industries
Fyrepel Products, Inc.
Globe Mfg. Co.
Industrial Gloves Co.
Industrial Products Co.
Industrial Safety Specialties Co.
Jaxco, Inc.
Kimball Safety Products Co.
Mine Safety Appliances Co.
Pulmosan Safety Equipment Corp.
Racine Glove Co.
Raybestos-Manhattan, Inc.
Safety Clothing & Equipment Co.
Wheeler Protective Apparel, Inc.

Boots

Beacon Falls Rubber Footwear
Cairns & Brother, Inc.
Fyr-Fyter Co.
Goodall Rubber Co.
B. F. Goodrich Footwear & Flooring Co.
Hood Industrial Footwear & Gloves
Mine Safety Appliances Co.
M. L. Snyder & Son, Inc.
U. S. Rubber Co.

Clothing, Canvas & Rubber

Robin W. Adair Co.
American Optical Co.
Beacon Falls Rubber Footwear
Cairns & Brother, Inc.
Cooley, Inc.
Frommelt Industries
Fyr-Fyter Co.
Globe Mfg. Co.
Goodall Rubber Co.
B. F. Goodrich Industrial Products Co.
Industrial Gloves Co.
Industrial Products Co.
Industrial Safety Specialties Co.
Janesville Apparel Co.
Kimball Safety Products Co.
Midwestern Safety Mfg. Co.
Mine Safety Appliances Co.
Morning Pride Mfg. Co.
Pulmosan Safety Equipment Corp.
Raybestos-Manhattan, Inc.
Safety Clothing & Equipment Co.
M. L. Snyder & Son, Inc.
U. S. Rubber Co.
Wheeler Protective Apparel, Inc.

Fire Rescue Suits

Cooley, Inc.
Fyrepel Products, Inc.
Industrial Gloves Co.
Industrial Products Co.
Industrial Safety Specialties Co.
Kimball Safety Products Co.
Mine Safety Appliances Co.
Pulmosan Safety Equipment Corp.
Safety Clothing & Equipment Co.
Standard Safety Equipment Co.
Wheeler Protective Apparel, Inc.

Hats, Caps, Uniforms

E. D. Bullard Co.
Cairns & Brother, Inc.
Cooley, Inc.
Fyrepel Products, Inc.
Fyr-Fyter Co.
B. F. Goodrich Industrial Products Co.
Industrial Gloves Co.
Mine Safety Appliances Co.
Pulmosan Safety Equipment Corp.
Racine Glove Co.
Safety Clothing & Equipment Co.
M. L. Snyder & Son, Inc.
Wheeler Protective Apparel, Inc.

Helmets

American Optical Co.
E. D. Bullard Co.
Cairns & Brother, Inc.
Fyr-Fyter Co.
Industrial Gloves Co.
Industrial Products Co.
Kimball Safety Products Co.
Mine Safety Appliances Co.
Morning Pride Mfg. Co.
Pulmosan Safety Equipment Corp.
Safety Clothing & Equipment Co.
Safety First Supply Co.
Wheeler Protective Apparel, Inc.

WEED KILLERS

E. I. duPont de Nemours & Co.
General Chemical Div.,
Allied Chemical Corp.

WETTING AGENTS

Akron Brass Mfg. Co.
American LaFrance
Aquadyne Corp.
Buffalo Fire Appliances (Fyr-Fyter Co.)
W. S. Darley & Co.
Firewater Co.
Fyr-Fyter Co.
General Fire Extinguisher Corp.
E. F. Houghton & Co.
National Foam System, Inc.
Pyrene—C-O Two (Fyr-Fyter Co.)
Rockwood Sprinkler Co.
M. L. Snyder & Son, Inc.
S. G. Stevens Co.
Union Carbide Chemicals Co.,
a division of Union Carbide Corp.

The Directory of Trade Names begins on page 85

NEW and NEEDED!

EAGLE SAFETY PLUNGER CANS

safe cleaning with flammable liquids . . . strong, durable, reliable . . . Factory Mutual approved . . . press down on spring-mounted dasher and measured fluid is forced up to dampen swab or sponge . . . 1, 2 qt., 1 gal.

EAGLE Style I SAFETY CANS

safe for handling all flammable liquids . . . Underwriters Laboratories and Factory Mutual approved . . . no waste, no splash, no spill . . . seamless body . . . guard cap prevents leak . . . 1, 2 qt., 1 gal. with trigger handle; 2½, 5 gal. with free-swing handle.

EAGLE SAFETY BENCH CANS

for cleaning small parts safely, quickly . . . approved by Factory Mutual . . . seamless steel body, finished in bright red . . . spring-mounted dasher acts as baffle to reduce fire hazard . . . 1, 2 qt., 2 gal.

EAGLE DRIP CAN

for use where a faucet may drip or a slow leak may occur . . . reduces fire hazard . . . approved by Factory Mutual . . . seamless steel body . . . 2 qt. capacity.

ORDER FROM YOUR SUPPLIER

Write for free catalog showing Complete Eagle Line . . . Eagle products are also available in Canada.

EAGLE MANUFACTURING CO., Wellsburg, W. Va.

Serving the Trade Since 1894

Circle No. 72 on reader service card

It's as simple as this . . .

The world's finest skin cleanser + a dispenser for every need = health and convenience for your employees

. . . efficiency and economy for you.

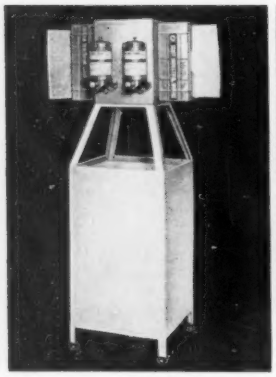
VI-LAN the greatest name in skin cleansing and protection — in a dispenser for every need.

You offer your employees:
Clean hands and face, free from dirt, grime and germs.

And for you:
Economy — dollars and time.

No. 90 Vi-Lan Dispenser
96 fluid oz. wall dispenser

No. 50 Vi-Lan Dispenser
40-oz. wall dispenser



No. 815 Vi-Lan Self-Service Unit
Two 40-oz. dispensers, two industrial wiper brackets, large waste disposal bin

No. 60 Vi-Lan Dispenser
96 fluid oz. portable dispenser for bench work, portable work carts, outside service trucks, oil rigs, work shops, etc.

USE VI-LAN

For complete details write, wire or phone

DAMERON ENTERPRISES, INC.
427 S. 20th Street • Louisville 3, Ky.
JUniper 3-4411

Circle No. 73 on reader service card

Circle No. 74 on reader service card

Where HEAT is A PROBLEM

. . . Fyrepel has the answers. We are the largest fabricators of aluminized glass cloth heat protective clothing and equipment. Our staff of experts in this field stand ready to serve you in working out your heat problems.

TOUCH-UP KIT

Here is an innovation that adds considerable life and efficiency to your aluminized clothing. We offer a proven aerosol solution of "touch up" aluminum that when sprayed ever so lightly on aluminized garments will cover worn spots. Use on fire and furnace entry clothing — proximity suits—sleeves—aprons—gloves—boots.

Write for catalog and details on complete line of fire and heat protective equipment.

FYREPEL PRODUCTS INC.
NEWARK, O.

THE EASY WAY TO MOVE AIR • DUST • FUMES • MATERIALS

Made of strong, durable coated fabrics, wire reinforced, and in sizes from 1¼" to 36" i.d. Flexaust hose and Portovent duct have been used for thousands of money-saving installations since 1938. New Catalog 605 gives detailed selection, price and installation data.

Send Today for Your FREE Copy

THE FLEXAUST COMPANY
DEPT. OH-6 100 PARK AVE • NEW YORK 17, N • Y •
Distributors in all principal cities

Circle No. 75 on reader service card

14TH ANNUAL FIRE PROTECTION EQUIPMENT GUIDE

Directory of Companies

A

AARON—Soda-acid extinguishers.
M. L. Snyder & Son, Inc.
ABC ALL CLASS—Extinguishers.
Alim Corp.
A.B.T.—Aerosol burn treatment.
E. D. Bullard Co.
ACME—Gas masks.
Acme Protection Equipment Co.
ACME—Soda-acid extinguishers.
M. L. Snyder & Son, Inc.
ACOUSTICAL FIRE GUARD — Fire-retardant acoustical ceilings.
Armstrong Cork Co.
ACTION-LITES — Automotive & commercial warning lights.
North American Signal Co.
ADAPTABEL—Bells.
Edwards Co.
ADAPTAHORN—Horns.
Edwards Co.
ADT—Industrial alarm systems.
American District Telegraph Co.
AD-O-PLASTIC—Warning signs.
Ad-O-Plastics.
AERO—Automatic fire alarm systems.
American District Telegraph Co.
AERO—Mill hose.
Republic Rubber Div.,
Lee Rubber & Tire Corp.
AER-O-FOAM—Foam liquid.
National Foam System, Inc.
AIR FOAM—Sprinkler system.
Automatic Sprinkler Corp. of America.
AIR MASK—Demand type masks.
Mine Safety Appliances Co.
AIR-PAK — Self-contained & extension hose model air units.
Scott Aviation Corp.
AJAX—Fire hose, booster hose.
Hewitt Robins, Inc.,
Hewitt Rubber Div.
AKBAR — Automatic fire doors and shutters.
Kinnear Mfg. Co.
AKRO-JET—Nozzle.
Akron Brass Mfg. Co.
AKRO-MIST—Fog nozzles.
Akron Brass Mfg. Co.
ALBI—Fire-retardant paint.
Albi Mfg. Co.
ALCOFOAM—Generator powder.
American LaFrance
ALCO-LITE—Metal & fiberglass ladders.
Aluminum Ladder Co.
ALCOSPRAY—Spray nozzles.
American LaFrance
ALERT—Watchclock.
Detex Watchclock Co.
ALFITE—Portable CO_2 extinguishers, wheeled engines & fixed systems.
American LaFrance
ALL-USE—Dry chemical extinguisher.
American LaFrance
ALL VISION—Mask facepieces.
Mine Safety Appliances Co.
ALLENCO — Hose, hose cabinets, racks, reels, couplings, spanners, axes, nozzles, siamese fittings, crowbars.
W. D. Allen Mfg. Co.
ALLEN-FLEX—Fire hose.
W. D. Allen Mfg. Co.
ALL PURPOSE—Gas mask canister.
Acme Protection Equipment Co.
ALL PURPOSE—Foam liquid.
Rockwood Sprinkler Co.
ALL-SERVICE—Canisters.
Mine Safety Appliances Co.
ALL-VISION—Facepieces.
Mine Safety Appliances Co.
ALLWEATHER—Fire hose.
American LaFrance.
ALL WEATHER—First aid kits.
Mine Safety Appliances Co.
ALZO-LITE—Floodlight.
Benjamin Div., Thomas Industries
AMBASSADOR—Dacron hose.
Fyr-Fyter Co.
AMBLEWAGON—Ambulances.
Automotive Conversion Corp.
AMBU-RESCUE — Breathing equipment.
American Optical Co.
AMBULANDAU—Ambulances.
Miller-Meteor Div.,
Divco-Wayne Corp.
AMERICAN — Synthetic rubber-lined hose.
American Rubber Mfg. Co.
AMERICAN—Motorized fire apparatus.
American Fire Apparatus Co.
AMERICAN—Safety fuel supply tanks.
American Safety Tank Co.
AMERICAN LAFRANCE — Fire apparatus; hand, portable & wheeled extinguishers; nozzles; ladders; shields.
American LaFrance
AMPCO—Nonsparking safety tools.
Ampco Metal, Inc.
AMVAD—Automatic, low-voltage fire locator system.
Edwards Co.
ANSUL — Dry chemical, water, CO_2 extinguishers.
Ansul Chemical Co.
APTAN—Sprinkler system.
Automatic Sprinkler Corp. of America
AQUA-FOAM—Foam nozzles.
Cardox Div., Chemetron Corp.
AQUA-FOAMPAK — Mechanized foam generator.
Cardox Div., Chemetron Corp.
AQUA FOG—Water nozzle.
Cardox Div., Chemetron Corp.
AQUA GAS—Water nozzle.
Cardox Div., Chemetron Corp.
AQUA JET—Water spray nozzle.
Cardox Div., Chemetron Corp.
ARCTIC—Antifreeze wheeled engines.
American LaFrance
ARDMORE—Hose reels & rollers.
Ardmore Products
ARGUSLITE—Flood & warning lights.
New Oxford Industries, Inc.
ARISTOCRAT—Foam extinguishers.
M. L. Snyder & Son, Inc.
ARROW—Pump tank extinguisher.
D. B. Smith & Co.
ARROW—Soda-acid extinguishers.
M. L. Snyder & Son, Inc.
ASBESTEX—Asbestos fire blankets.
Frommelt Industries
ASBESTOS FIRE-FITER—Asbestos clothing.
Industrial Gloves Co.
ASBESTOS FIREMAN — Asbestos clothing, fire rescue suits.
Wheeler Protective Apparel, Inc.
ATLAS — Insulated crash axes, hatchets, rope ladders.
Atlas Safety Equipment Co.
ATMO—Fire detection system.
Kidde Ultrasonic & Detection Alarms Div.
AUDIO HAILER — Transistor-powered portable megaphone.
Audio Equipment Co.
AUTOCALL — Fire alarms, plant watch systems, break glass stations, bells, sprinkler supervisory.
Autocall Co.
AUTOMATALITE — Emergency lighting.
Carpenter Mfg. Co.
AUTOMATIC SPRINKLER — Sprinkler systems, valves, releases; fire protection systems.
Automatic Sprinkler Corp. of America
AUTO-STREAM—Fog nozzles.
Akron Brass Mfg. Co.

B

B & M—Sirens.
B & M Siren Mfg. Co.
BARTON-AMERICAN—Fire pumps.
American Fire Pump Co.
BAR-WAY—High-pressure couplings.
Bar-Way Mfg. Co.
BAY STATE—Fire hose.
Boston Woven Hose & Rubber Div., American Biltrite Rubber Co.
BEACON-RAY—Warning lights.
Federal Sign & Signal Corp.
BEAM-O-MATIC — Automatic emergency lights.
U-C Lite Mfg. Co.

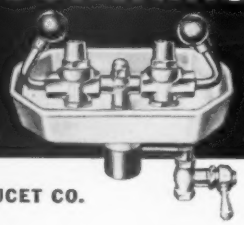
Circle No. 76 on reader service card

IN EMERGENCY... contaminated eyes are instantly cleansed of dangerous particles and chemicals by *controlled* water streams from HAWS Emergency Eye-Wash Fountains. This "split second safety" before medical aid arrives can mean the difference between temporary eye irritation and permanent eye injury! HAWS will provide emergency facilities best suited for your safety program—minimizing hazards, reducing claims, lowering insurance costs. Get the facts by writing today for illustrated literature!

HAWS EYE-WASH FOUNTAINS

MODEL 7100
(old model 8930)

Basic eye-wash model with enameled iron bowl; quick-opening valve for manual operation; adaptable to treadle operation; chrome plated brass water pressure regulators and twin fountain heads. Wall mounted and pedestal models available.



HAWS

HAWS DRINKING FAUCET CO.
Since 1909
1443 FOURTH STREET
BERKELEY 10, CALIFORNIA

EXPORT DEPARTMENT: 19 Columbus Avenue, San Francisco 11, California, U.S.A.

GLOBE FIREMEN'S SUITS

. . . "the suit that suits"
—and we mean it!

3 MODELS — ONE FOR EVERY CLIMATE & SEASON
LIGHTWEIGHT—REGULAR—ALL-TEMP

Tough, long-wearing duck, waterproof interlining, plaid flannel or 100% wool liner.

6 COLORS & WHITE

Black, brown, blue, red, olive drab, yellow.

ALUMINIZED SUITS & COVER SUITS

Made from famous, 3M aluminized fabric; reflect 90% of radiant heat; designed for intense heat protection; same choice of styles as standard GLOBE suits. Cover suits are worn over GLOBE duck suits.

Get complete details now . . . Write for our new catalog or see your dealer . . . megaphones, gloves, and other accessories.

STANDARD SINCE 1901

GLOBE SUITS

GLOBE MANUFACTURING CO. PITTSFIELD, N.H.

Circle No. 77 on reader service card

Directory of Trade Names

continued from page 85

BEAN — Industrial high-pressure fog apparatus.
John Bean Div.,
Food Machinery & Chemical Corp.

BENJAMIN — Industrial fire alarm systems, horns, sirens, floodlights.
Benjamin Div., Thomas Industries

BENNETT BILT — Waste disposal units.
Bennett Mfg. Co.

BERYLCO—Nonsparking safety tools.
Beryllium Corp.

BIG BEAM — Flares, hand lights, warning lights, emergency lighting.
U-C Lite Mfg. Co.

BIG TOP—Self-closing lid.
Witt Cornice Co.

BI-KLEEN—Fire hose cleaner.
Bi-Lateral Fire Hose Co.

BI-LATERAL — Cotton rubber-lined fire hose.
Bi-Lateral Fire Hose Co.

BI-ROLL—Fire hose.
Hewitt Robins, Inc.,
Hewitt Rubber Div.

BLACK-WIDOW—Deluge nozzle.
Akron Brass Mfg. Co.

BLACKINTON—Badges, insignia.
V. H. Blackinton Co.

BLAZE BRAKER—Welding curtains.
Fulton Cotton Mills

B-L-B—Rubber masks.
(E&J) Ohio Chemical & Surgical Equipment Co.

BLITZ BUGGY—Small high-pressure fire trucks.
Blitz Buggy Co.

BLIZZARD — Dry chemical powder extinguisher.
M. L. Snyder & Son, Inc.

BLOCKOTE—Vapor & acid barrier fabrics.
Wheeler Protective Apparel, Inc.

BLUE RIBBON — Wood & metal ladders.
Goshen Mfg. Co.

BOARDMAN — Motorized fire apparatus.
Boardman Co.

BOMGARDNER — Cots, inhalators, resuscitators, respirators, stretchers.
Bomgardner Mfg. Co.

BOSTON—Nozzles, hose.
Boston Woven Hose & Rubber Div., American Biltrite Rubber Co.

BOYER—Fire apparatus.
Universal Fire Apparatus Corp.

BRAC-KIT—First aid kit.
Davis Emergency Equipment Co.

BRAXMAR—Badges, insignia.
C. G. Braxmar Co.

BREAKSTONE—CO_2 extinguisher.
M. L. Snyder & Son, Inc.

BREATHE-LIFE TRAINER — Training device for mouth-to-mouth resuscitation.
Medical Supply Co.

BRESNAN—Cellar pipe nozzles.
Elkhart Brass Mfg. Co.

BUCKEYE — Nozzles, hose, accessories.
Buckeye Machine Products Corp.

BUFFALO BRAND — Fire engine suction hose.
Hewitt Robins, Inc.,
Hewitt Rubber Div.

BUFFALO—CO_2 dry chemical, foam, soda-acid, vaporizing liquid, water, wheeled extinguishers.
Buffalo Fire Appliances.
(Fyr-Fyter Co.)

BULL DOG—Rubber-lined cotton fire hose.
Boston Woven Hose & Rubber Div.,
American Biltrite Rubber Co.

BURD-OX—CO_2 extinguishers.
American Industrial
Safety Equipment Co.
Burdett Oxygen Co.

BURN-QUEL—Aerosol burn spray.
A. E. Halperin Co.

BUTT-SNUFFERS — Smoking receptacles.
Safety Floor Products Co.

C

CAPTAIN — Vaporizing liquid extinguisher (hand pump).
Fyr-Fyter Co.

CARDINAL—Fire hose.
Boston Woven Hose & Rubber Div.,
American Biltrite Rubber Co.

CARDOX—CO_2 fire trucks, foam fire trucks, trailerized fire equipment, built-in CO_2 systems.
Cardox Div., Chemetron Corp.

CARFONE—Mobile radio equipment.
Radio Corp. of America

CARPENTER-LIGHTS — Automatic emergency, emergency & warning lights.
Carpenter Mfg. Co.

CARRY EZ—Chair.
Bomgardner Mfg. Co.

C-D-C — Foam-compatible dry chemical.
Ansul Chemical Co.

CELLUGUARD—Fire-resistant water-glycol hydraulic fluid.
Celanese Chemical Co., a division
of Celanese Corp. of America

CELLUTHERM — Synthetic high-temperature lubricant.
Celanese Chemical Co., a division
of Celanese Corp. of America

CENTRAL STATION — Water extinguisher.
Fyr-Fyter Co.

CHAIR COT—Stretchers.
Bomgardner Mfg. Co.

CHALLENGER — Wheeled Foamite engine.
American LaFrance

CHALLENGER—Motorized fire apparatus.
Sharpsville Steel Fabricators, Inc.

CHAMPION—Knapsack fire pumps.
Champion Sprayer Co.

CHAMPION — Motor apparatus fire pumps.
W. S. Darley & Co.

CHEMOCRAT—Respirator.
Pulmosan Safety Equipment Corp.

CHEMOX — Self-contained breathing apparatus.
Mine Safety Appliances Co.

continued on next page

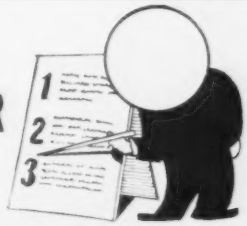
Circle No. 78 on reader service card

Ready Made signs are available in thousands of stock wordings covering every need, for both indoor and outdoor use. All materials, all sizes. Also special signs made to your own specifications.

• *Write for Complete Catalog*

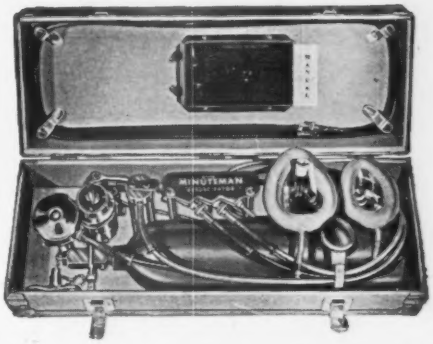
SIGNS FOR SAFETY
SIGN COMPANY, INC.
Dept. OH-6 115 Worth St., New York 13, N.Y.

The STEPHENSON MINUTEMAN RESUSCITATOR



saves life three ways

This ingeniously compact instrument, weighing under 30 lbs. with tank, combines the functions of three units in one. As a Resuscitator it actually breathes for the patient who is unable to do so. As an Inhalator it is used where the patient can breathe but requires more oxygen. As an Aspirator it clears the air passages of mucus, froth, blood or other obstruction. With an extra Midget attachment, it will resuscitate two patients and aspirate a third simultaneously. Pressures adjustable from Adult to Infant with manual override when needed and with mixtures from 100% oxygen to 50% oxygen—50% nitrogen from the air.



SEND COUPON FOR FULL INFORMATION ▶

STEPHENSON CORPORATION
RED BANK NEW JERSEY
U.S.A.

In Canada—Wilson & Cousins, Toronto

STEPHENSON CORPORATION, Red Bank, N. J.
☐ Please send Minuteman Folder F-3
☐ Please arrange for demonstration
NAME.....
TITLE.....
STREET.....
CITY.....STATE.....

Circle No. 79 on reader service card

Directory of Trade Names

continued from page 87

CHIEF—Shutoff nozzles.
Elkhart Brass Mfg. Co.
CIRCUL-AIR—Hose washers, dryers, cabinets, racks.
Circul-Air Corp.
CLARK-COOPER—Horns, signals.
Falcon Alarm Co.
CM-7—Vaporizing liquid extinguishing agent.
Red Comet, Inc.
COHARDITE—Wire cutters.
H. K. Porter, Inc.
COLD-FOAM — Foam liquid (for —20° F).
National Foam System, Inc.
COLLAPSI-COT—Stretchers.
Emergency Aids Co.
COMMANDO—Dry cell hand lantern.
Koehler Mfg. Co.
COMMANDO—Pumpers, tank trucks.
Progress Mfg. Co.
CONDOR—Fire hose.
Raybestos-Manhattan, Inc.
CONTROL-FLO — Valves, fire hose valves.
Fyr-Fyter Co.
CONVERTS-WAGON—Station wagon ambulance kits.
Bomgardner Mfg. Co.
C-O-TWO—Extinguishers, built-in extinguishing systems, built-in smoke- and heat-detecting systems.
Fyr-Fyter Co.
COUCH—Signaling equipment.
S. H. Couch Co.
CRACKERJACK — Rubber-lined cotton hose.
American Rubber Mfg. Co.
CRESTONE—Incombustible acoustical ceiling tile.
Armstrong Cork Co.
CRUISER—Ambulances.
Christopher Co.
C-THRU—Unit system first aid equipment.
Davis Emergency Equipment Co.
CSS—Sprinkler & automatic fire alarm equipment.
Central Station Signals, Inc.
CUSHION BALL—Nozzle.
Fyr-Fyter Co.

D

DAN-DRY—Salvage covers.
C. R. Daniels, Inc.
DANDUX—Canvas fire pails & buckets; salvage covers.
C. R. Daniels, Inc.
DANTEX—Salvage covers.
C. R. Daniels, Inc.
DAYTON—Cotton rubber-lined hose, water extinguisher (hand pump).
Fyr-Fyter Co.
DE LUXE—Fire hose & extinguisher cabinets.
Wirt & Knox Mfg. Co.
DETECT-A-FIRE — Thermostatic sensing units for automatic systems.
Fenwal, Inc.
DIAL-A-TIP—Fog nozzles.
Elkhart Brass Mfg. Co.
DIRECT-ER—Sirens.
Pyle-National Co.
DRAGON—Portable fire pumps.
Parco Products Co.
DREDNAUT—Respirator mask.
American Optical Co.
DRENCH—Wetting agents.
National Foam System, Inc.
DRI-POWER — Dry chemical extinguishers.
Safety First Products Corp.
DRI-RACK—Fire hose.
Goodall Rubber Co.
DUALARM—Alarm system.
Gamewell Co.
DUALGUARD—Sprinkler system.
Rockwood Sprinkler Co.
DUALGUARD DELUXE — Deluge sprinkler.
Rockwood Sprinkler Co.
DUALIFE — Resuscitator-mask combination.
Globe Industries, Inc.
DUALSTREAM — Nozzles for dry chemical fire hose.
Ansul Chemical Co.
DUBL-TUFF—Foam.
Akron Brass Mfg. Co.
DU-O-MATIC — Proprietary control panels.
Notifier Corp.
DUO-SAFETY—Aluminum & wood ladders.
Duo-Safety Ladder Corp.
DUO-SERVICE—Floodlights.
Benjamin Div., Thomas Industries
DURA-FOG—Nozzles.
Powhatan Brass & Iron Works, Inc.

NOW . . . it's E-A-S-Y to conduct a CAMPAIGN FOR OFF-THE-JOB EMPLOYE SAFETY

SAVE LIVES — SAVE INJURIES — SAVE MONEY
for your organization with a "proven" OFF-THE-JOB SAFETY EDUCATIONAL PROGRAM to encourage employes to install and use safety belts in their personal cars. The "Beam's Plan" was designed after actual experience in helping conduct employe safety belt campaigns for some of our nation's largest industries. Now you can give your employes BOTH "On-the-Job" protection and "Off-the-Job" protection with . . .

Beam's AUTO SAFETY BELTS

Free
FOR SAFETY CONSCIOUS BUSINESS, INDUSTRY AND GOVERNMENTAL AGENCIES

And under the "Beam's Plan" you can offer your employes safety belt protection at a **special discounted price.** FREE materials are available to help you develop a successful safety belt program within your organization — 16 mm sound safety films, posters, folders, sample letters, timetable, order envelopes, color swatches, sample belts (complete description included in the portfolio). All or any part of the plan is available for use in conducting your safety belt program. WRITE NOW FOR YOUR FREE COPY OF THE "BEAM'S PLAN" . . . without obligation.

PLEASE SEND ME A COPY OF THE "BEAM'S PLAN"

NAME.....
ORGANIZATION..... NO. OF EMPLOYES.....
ADDRESS.....
CITY..... STATE.....

PE 2-2275
Beam's
13th and North Robinson Oklahoma City, Okla.

Circle No. 80 on reader service card

DURASPEED — Sprinkler system (solder release).
Grinnell Co.

E

E&J—Resuscitators, inhalators.
(E&J) Ohio Chemical & Surgical Equipment Co.
EAGLE—Safety cans.
Eagle Mfg. Co.
EASTMAN—Deluge sets, fire department brass goods.
Samuel Eastman Co.
EASTMAN-SUPERIOR — Deluge guns.
Samuel Eastman Co.
ECO—Watchclock.
Detex Watchclock Corp.
ECON-O-MATIC—Local fire alarms.
Notifier Corp.
ECONOMY—Stretcher.
Bomgardner Mfg. Co.
ECONOMY—Fire hose.
Raybestos-Manhattan, Inc.
ECONO-RAK — Fire hose storage rack.
Circul-Air Corp.
EDWARDS—Fire alarm & communication systems.
Edwards Co.
EK-HOOK — Pike poles & forcible entry tools.
C. D. Pike & Fire Hook Mfg. Corp.
ELECTRO-MATIC—Pumps.
Waterous Co.
ELK—Hose racks.
Elkhart Brass Mfg. Co.
ELK-AIR—Extinguishers.
Elkhart Brass Mfg. Co.
ELKALOY—Extinguisher.
Elkhart Brass Mfg. Co.
ELK-CO_2—Extinguisher.
Elkhart Brass Mfg. Co.
EMERSON — Resuscitators, respirators, inhalators.
J. H. Emerson Co.
EUREKA—Fire hose.
U. S. Rubber Co.
EXCELO—Chemical booster hose.
Republic Rubber Div., Lee Rubber & Tire Corp.
EXIDE—Emergency light.
Exide Industrial Marketing Div., Electric Storage Battery Co.
E-Z FLEX—Fire hose.
Goodall Rubber Co.

F

F.A.P.A.—Multipurpose emergency car.
Christopher Co.
FABRIC—Fire hose.
Fabric Fire Hose Co.
FAIRBANKS MORSE—Fire pumps.
Fairbanks, Morse & Co.
FALCON—Alarm systems, industrial warning horns, fire-detecting units & systems, signalling horns, automatic tank overfill alarms.
Falcon Alarm Co.
FARADAY — Alarm systems (automatic central station & industrial), sirens, horns.
Faraday, Inc.
FEDERAL—Unlined linen fire hose.
Federal Fire Hose Mfg. Co.
FEDERAL — Industrial fire alarm systems, sirens, horns, lights, whistles.
Federal Sign & Signal Corp.
FENWAL — Thermostatic sensing units & switches.
Fenwal, Inc.
FIRE BAFFLE—Shields.
Frommelt Industries
FIRE BALL—Warning light.
Federal Sign & Signal Corp.
FIRE CAPTAIN—Dry chemical extinguisher.
Leeder Mfg. Co.
FIRE CHEX—Extinguishers.
Fire Chex Corp.
FIRE CHIEF DUCKS — Canvas shields.
Wm. E. Hooper & Sons Co.
FIRE CHIEF VINYL—Fire shields (coated fabric).
Wm. E. Hooper & Sons Co.
FIRE FIGHTER—Pumps.
Gorman-Rupp Co.
FIRE FIGHTER—Gas masks.
Willson Products Div., Ray-O-Vac Co.
FIRE FIGHTER BOOTS—Boots.
B. F. Goodrich Footwear & Flooring Co.
Hood Industrial Footwear & Gloves

continued on next page

SPEAKMAN
LIFESAVER emergency shower

instantly floods worker under a rinsing deluge... drowns flames, washes off acids, chemicals and fumes

Accidents can slip through even the finest safety program. You protect your workers from these inevitable emergencies when you equip your plant or laboratory with Speakman LIFESAVER emergency showers. Carefully inspected and tested under water pressure, they assure durable, reliable performance under the hardest use. For indoors and outdoors.

Speakman Safety Showers and Fixtures are available in many types, sizes and combinations. For complete descriptions, write to Dept. OH, ask for Safety Booklet S-88-A.

S-2075 Speakman LIFESAVER emergency shower. Size 1 inch. 8-inch cast brass self-cleaning shower head with adjustable face. Discharges 29 gallons per minute at only 30 lbs. pressure.

SPEAKMAN COMPANY
WILMINGTON 99, DELAWARE

Circle No. 81 on reader service card

Directory of Trade Names

continued from page 89

FIRE FITER—Protective apparel.
Industrial Gloves Co.

FIRE FOG—Water spray system & nozzles.
Automatic Sprinkler Corp. of America.

FIRE GUARD—CO_2, dry chemical, foam, soda-acid, vaporizing liquid, water, wheeled, knapsack extinguishers.
General Fire Extinguisher Corp.

FIRE-GUN — Vaporizing liquid extinguishers.
American LaFrance

FIRE KING—Protective clothing.
Wheeler Protective Apparel, Inc.

FIRE-MATE—Foam & water nozzles.
Cardox Div., Chemetron Corp.

FIREMAN'S CUTTER — Wire cutters.
H. K. Porter, Inc.

FIRE SPOT—Sensing units for fire detection systems.
Notifier Corp.

FIREWATER—Wetting agent.
Firewater Co.

FITE RITE—Fire blanket in self-storing container.
Cotton Goods Mfg. Co.

FLAMEBUSTER—Fire hose valves.
Grinnell Co.

FLAME DODGER—Asbestos clothing, fire rescue suits.
Standard Safety Equipment Co.

FLAT TOP—Galvanized & painted lids.
Witt Cornice Co.

FLEXALARM—Automatic & manual fire alarm systems.
Gamewell Co.

FLEXCELO—Fire hose.
Republic Rubber Div., Lee Rubber & Tire Corp.

FLINT-FLEX—Plastic fire helmets.
Cairns & Brother, Inc.

FOAM—Foam liquid.
Rockwood Sprinkler Co.

FOAMITE — Extinguishers, wheeled engines, generators, generator powder, portable & fixed systems.
American LaFrance

FOAMITE AIRFOAM — Generating nozzles, liquid, portable & fixed systems.
American LaFrance

FOAM-MAKER—Foam systems.
Cardox Div., Chemetron Corp.

FOAM-WATER—Sprinklers.
Star Sprinkler Corp.

F.O.B.—Aerosol burn spray.
E. D. Bullard Co.

FOG CHIEF—Nozzles.
Powhatan Brass & Iron Works, Inc.

FOG FOAM—Foam nozzle.
Rockwood Sprinkler Co.

FOG-HOG—Deluge nozzle.
Akron Brass Mfg. Co.

FOG-KAR — Pumper (high-pressure fog).
W. J. Thiele & Sons Co.

FOG KING—Fire nozzles.
Fyr-Fyter Co.

FOG MASTER—Fire nozzles.
Fyr-Fyter Co.

FOG-STREAM—Fog nozzles.
Western Fire Equipment Co.

FOILLE—Burn medicant.
Carbisulphoil Co.

FOLD-A-COT—Collapsible stretcher.
Bomgardner Mfg. Co.

FORGED—Fire hose couplings.
Fyr-Fyter Co.

FORGEX—Couplings.
Akron Brass Mfg. Co.

FORESTER — Forest fire tools & lights.
Western Fire Equipment Co.

FRANK—Safety leggings & spats.
Safety Clothing & Equipment Co.

FROMMELT—Screens, shields, covers, blankets, clothing.
Frommelt Industries

FULL VISION—Gas mask facepiece.
Acme Protection Equipment Co.

FULTON—Canvas shields.
Fulton Cotton Mills

FYR-CRY—Automatic alarm system.
Fyr-Fyter Co.

FYR-FLEX — Cotton rubber-lined hose.
Fyr-Fyter Co.

FYRE-FREE—Fire-resistant clothing.
American Optical Co.

FYRE-FREEZ—Portable CO_2 extinguishers.
Walter Kidde & Co.

FYREPEL—Aluminized heat- & fire-resistant clothing.
Fyrepel Products, Inc.

FYR-FYTER — CO_2, dry chemical, foam, soda-acid, vaporizing liquid, water, wheeled extinguishers, cotton rubber-lined hose, extinguisher cabinets, nozzles, couplings, dry chemical systems.
Fyr-Fyter Co.

FYRINDEX—Fire detectors.
Kidde Ultrasonic & Detection Alarms Div.

FYRMAN—Cotton rubber-lined hose.
Fyr-Fyter Co.

FYRUMBRELLA — Aluminized heat shield.
Fyrepel Products, Inc.

G

G-1—Extinguishing powder for magnesium fires.
Fyr-Fyter Co.

GAMEWELL — Fire alarm & plant watch systems.
Gamewell Co.

GARDWELL — Safety clothing & equipment.
Safety Clothing & Equipment Co.

GENERAL—CO_2, dry chemical, foam, soda-acid, vaporizing liquid, water, wheeled, knapsack extinguishers.
General Fire Extinguisher Corp.

GENERAL QUICK AID FIRE-GUARDS—CO_2, dry chemical, foam, acid, vaporizing liquid, water, wheeled extinguishers.
General Fire Extinguisher Corp.

GEYSER—Deluge & ladder pipe nozzles.
Fyr-Fyter Co.

GLOBAIR/GLOBOX—Mask.
Globe Industries, Inc.

GLOBE—Automatic sprinkler systems, sprinklers, fusible links, alarm valves, dry pipe valves, detector check valves, hydrant & hose houses.
Fyr-Fyter Co.

GLOBE TURN-OUT — Firemen's waterproof canvas suits.
Globe Mfg. Co.

GOLD MEDAL — Soda-acid extinguishers.
M. L. Snyder & Son, Inc.

B. F. GOODRICH—Fire, suction, & chemical hose.
B. F. Goodrich Industrial Products Co.

GOODYEAR—Fire, suction & chemical hose.
Goodyear Tire & Rubber Co.

GRANT-MULTIVERSAL — Deluge sets.
Akron Brass Mfg. Co.

GREENWEAR—Acid-resistant clothing.
Wheeler Protective Apparel, Inc.

GRIMES — Automatic sprinkler systems, sprinkler valves, fire protection systems & sprinkler heads.
Raisler Sprinkler Div., Raisler Corp.

GRINNELL — Automatic sprinkler systems, sprinkler valves, fire protection systems.
Grinnell Co.

GUARDSMAN—Air-oxygen mask.
Globe Industries, Inc.

GUARDSMAN—Watchclock.
Detex Watchclock Corp.

GYRALITE—Warning lights.
Pyle-National Co.

H

HAGGARD—Stretchers.
Medical Supply Co.

HALCO—Industrial & unit first aid kits, safety equipment.
A. E. Halperin Co.

HANDIE-TALKIE — Two-way portable radio.
Motorola Communications & Electronics, Inc.

HANNAY—Hose reels, hose rollers & guides.
Clifford B. Hannay & Son, Inc.

HARD BOILED—Fiberglass fire helmet.
E. D. Bullard Co.

HEDGARDS—Safety hats & caps.
Davis Emergency Equipment Co.

HEIDBRINK — Oxygen therapy apparatus, accessories.
(E&J) Ohio Chemical & Surgical Equipment Co.

HEWCRON—Fire hose.
Hewitt Robins, Inc., Hewitt Rubber Div.

HEWFLEX—Fire hose.
Hewitt Robins, Inc., Hewitt Rubber Div.

HEWITT BRAND—Soft suction hose.
Hewitt Robins, Inc., Hewitt Rubber Div.

HEWROLITE—Fire hose.
Hewitt Robins, Inc.,
Hewitt Rubber Div.
H-H-60—In-plant fire truck.
John Bean Div.,
Food Machinery & Chemical Corp.
H-H INHALATOR—Inhalators.
Mine Safety Appliances Co.
HIGH VACUUM—Hand pumps.
Tokheim Corp.
HKP — Wire cutters, forcible entry tools.
H. K. Porter, Inc., P-F Div.
HOMOFLEX—Hose.
Raybestos-Manhattan, Inc.
HONEYWELL — Fire detection & alarm systems.
Minneapolis-Honeywell Regulator Co.
HOOSIER — Hose cabinets, pressurized water extinguishers.
Elkhart Brass Mfg. Co.
HOOSIER—Salvage covers.
Hoosier Tarpaulin & Canvas Goods Co.
HOUGHTO-SAFE—Hydraulic fluid.
E. F. Houghton & Co.
HOWE — Hose spanners, CO_2 fire trucks, foam fire trucks, trailerized fire equipment.
Howe Fire Apparatus Co.
HOZEGARD—Reel, fire hose cabinet.
W. D. Allen Mfg. Co.
HYDRA LEVEL—Cot.
Bomgardner Mfg. Co.
HYDRO—Fire hose.
Republic Rubber Div.,
Lee Rubber & Tire Corp.
HYDRO-PAK — Underwater breathing equipment.
Scott Aviation Corp.

I

IDEAL—Dry chemical extinguisher.
M. L. Snyder & Son, Inc.
IMPEC-AIR—Fire hose dryer.
Circul-Air Corp.
IMPERIAL—Nozzles.
Akron Brass Mfg. Co.
INDIAN — Portable backpack fire pumps, spray nozzles.
D. B. Smith & Co.
INDIAN CHIEF—Fire axes.
Mann Edge Tool Co.
INDUSTRIAL SIREN—Siren.
Benjamin Div., Thomas Industries
INNERFLEX—Fire hose.
General Fire Extinguisher Corp.
INSTANT—Extinguishers.
Fyr-Fyter Co.
INTERNATIONAL—Ambulance.
International Harvester Co.,
Motor Truck Div.
INTERCEPTOR—Combination electronic siren & public address unit.
Federal Sign & Signal Corp.
INVINCIBLE—Hose.
Mercer Rubber Co.
IPC—Lighting protection systems.
Independent Protection Co.
IPCO—Fire blankets, blanket holders, burn dressings, burn medicants, first aid kits, canvas shields, fire shields, salvage covers, welding curtains & asbestos clothing.
Industrial Products Co.
I-R—Nonsparking safety tools.
Ingersoll-Rand Co.
IRUS 902—Hydraulic fluid.
Shell Oil Co.
ISSCO—Fire rescue suits (asbestos).
Industrial Safety Specialties Co.

J

J-W—Gas indicator.
Johnson-Williams, Inc.
JANESVILLE — Rubber & canvas clothing.
Janesville Apparel Co.
JUMBO—Fog nozzles.
Elkhart Brass Mfg. Co.
JUMBO-KING—Fog nozzles.
Elkhart Brass Mfg. Co.
JUSTRITE — Warning lights, oily waste cans, containers.
Justrite Mfg. Co.

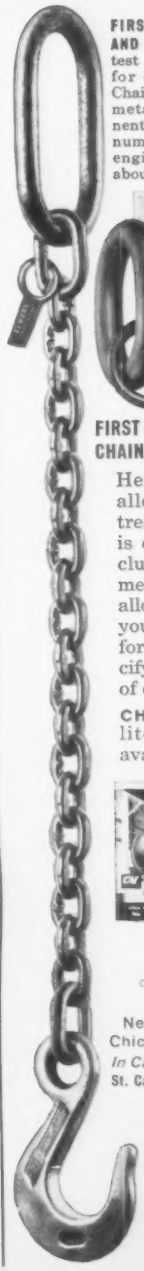
K

KARBALOY — Chemical extinguishing agent.
Fyr-Fyter Co.

continued on next page

HERC-ALLOY
the sling chain with everything

- *high resistance to impact loading*
- *maximum safety for overhead lifting*
- *lighter weight for easier handling*
- *long life on toughest jobs*



FIRST TO BE TESTED, REGISTERED AND GUARANTEED. A Certificate of test including guarantee is issued for each new Herc-Alloy Sling Chain shipped from our factory. A metal registration tag is permanently attached bearing the serial number which is recorded in our engineering files with full details about your chain.

FIRST CHOICE WITH EXPERIENCED CHAIN BUYERS SINCE 1933

Herc-Alloy is the original alloy steel chain...is heat treated by a special process... is electrically welded by exclusive Inswell time-tested method. All attachments are alloy steel including those to your specifications which are forged in our own shop. Specify Herc-Alloy for the best of everything in sling chains.

CHAIN SAFETY PROGRAM literature and assistance available.

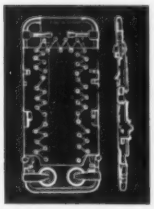
SEND FOR helpful Data Book on Herc-Alloy sling chain selection, care, use and inspection.

COLUMBUS McKINNON CHAIN DIVISION
COLUMBUS McKINNON CORPORATION
Tonawanda, New York
New York (Mountainside, N. J.)
Chicago, Cleveland, San Francisco
In Canada: **Columbus McKinnon Limited, St. Catharines, Ontario** HERC-ALLOY® CM®

RUGGED · DURABLE
CM®
CHAIN

Circle No. 82 on reader service card

THE REVOLUTIONARY ALL-PURPOSE



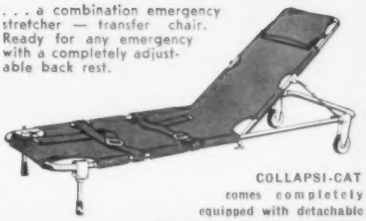
In just 10 seconds, this handy, compact, folded COLLAPSI-COT becomes . . .

Send for descriptive literature.

EMERGENCY AIDS COMPANY
6019 Northwest Hwy. • Chicago 31, Illinois

COLLAPSI-COT

. . . a combination emergency stretcher — transfer chair. Ready for any emergency with a completely adjustable back rest.



COLLAPSI-CAT comes completely equipped with detachable waterproof pillow, canvas cover, and two restrainer straps. Can be used in the plant or carried in an emergency vehicle. Collapses to handy compact size, 45" long by 20" wide by 2¼" thickness that simplifies storage.

Circle No. 83 on reader service card

Directory of Trade Names

continued from page 91

KIDDE—Built-in CO_2 systems; smoke detecting systems, CO_2, dry chemical, foam, soda-acid, vaporizing liquid, water, antifreeze, pump tank & rack & wheeled extinguishers; hose & rack reel extinguishers.
Walter Kidde & Co.

KIDDE—Ultrasonic & photo-electric burglar & intrusion alarms.
Kidde Ultrasonic & Detection Alarms Div.

KIDDE ATMO—Fire detection system, home fire alarms.
Kidde Ultrasonic & Detection Alarms Div.

KIMBALL—Protective clothing.
Kimball Safety Products Co.

KINNEAR—Automatic fire doors.
Kinnear Mfg. Co.

KLEVER COT—Ambulance.
Washington Products Co.

KOEHLER—Gas & oxygen deficiency detector.
Koehler Mfg. Co.

KONTROL—Foam and soda-acid extinguishers.
M. L. Snyder & Son, Inc.

KONTOUR-KOT—Ambulance cot.
Washington Products Co.

KOOL-GRIP—Asbestos gloves.
Industrial Gloves Co.

KORTLANDT—Fire hose.
Raybestos-Manhattan, Inc.

KREISELMAN—Resuscitator.
(E&J) Ohio Chemical & Surgical Equipment Co.

K-S—Plastic masks.
(E&J) Ohio Chemical & Surgical Equipment Co.

L

LEONARD—Fire pump.
American Fire Equipment Co.

LIFEKEEPER — Expendable or reusable plastic blanket.
Medical Supply Co.

LIGHTGUARD—Emergency lighting.
Exide Industrial Marketing Div., Electric Storage Battery Co.

LIGHTING—Hose racks, reels, carts.
American Rubber Mfg. Co.

LIGHT WARDEN CHARGOMATIC — Automatic emergency lighting.
Electric Cord Co.

LINDE—Oxygen therapy equipment.
Linde Co., a division of Union Carbide Corp.

LITH-X — Extinguishing agent for combustible metal fires.
Ansul Chemical Co.

LITTLE BEAN—Plant fire truck.
John Bean Div., Food Machinery & Chemical Corp.

LITTLE GIANT—Play pipes.
Fyr-Fyter Co.

LITTLE MO'S—Nozzles.
Army's Fire Service.

LOADED STREAM INSTANT Extinguishers.
Fyr-Fyter Co.

LONG BAND—Plastic adhesive bandage.
E. D. Bullard Co.

LOWBOY—Station wagon cot.
Bomgardner Mfg. Co.

LUX—Portable CO_2 extinguishers.
Walter Kidde & Co.

LUX-O-MATIC—CO_2 systems.
Walter Kidde & Co.

M

M & H — Hydrants, check & gate valves, bell & spigot fittings, indicator posts.
M & H Valve & Fittings Co.

MACK—Pumpers, tank trucks, aerials.
Mack Trucks, Inc., Fire Apparatus Div.

MAGNA-FORCE — Fire hose couplings.
Fyr-Fyter Co.

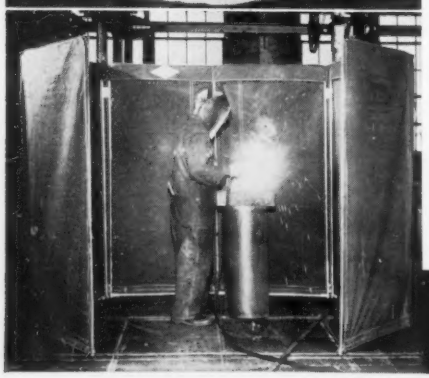
MALTESE CROSS—Fire hose, fog hose.
Hewitt Robins, Inc., Hewitt Rubber Div.

MANHATTAN—Fire hose.
Raybestos-Manhattan, Inc.

MARINE X — Dry chemical extinguisher.
Leeder Mfg. Co.

MARS—Warning lights, sirens.
Mars Signal Light Co.

SHIELDING FOR SAFETY



ROLLS UP

SPA-FLA THE HANDY WRAP AROUND SHIELD

Protects Against—Fire, Spark, Flash.
Seven Stock Sizes.
Fabrics—UL Approved Duck and Weld-Tex.

FOLDS UP

SAF-T-SCREEN "60"

A Portable Fire Shield with Tubular Aluminum Frames, Light Weight, Folds, Easily Carried.
Fire Resistant Fabrics—Duck—Weld-Tex—Ray-Foil.

RAY-FOIL

The Miracle Fabric of Aluminum Foil on Glass Cloth as a Shield, Screen, Curtain, Garments.

Free Fabric Samples and Literature

FROMMELT INDUSTRIES, INC. FROMMELT
Dubuque, Iowa
FABRICATORS OF APPROVED SAFETY PRODUCTS

Circle No. 84 on reader service card

MASTER-LIGHTS — Hand & automatic emergency lights.
Carpenter Mfg. Co.
MAST-R—Adapters.
B & M Siren Mfg. Co.
MAXFLEX—Fire hose.
Hewitt Robins, Inc., Hewitt Rubber Div.
MAXIM — Emergency lighting units, CO_2 & foam fire trucks, trailerized fire equipment, pumpers, tank trucks, crash trucks, ladder trucks.
Maxim Motor Co.
MESSICK—Automatic fire alarms & systems.
Standard Alarm & Signal Co.
METAL FYR-POWDER — Extinguishing agent.
Fyr-Fyter Co.
MET-L-KYL — Extinguishing agent for metal alkyl fires.
Ansul Chemical Co.
MET-L-X—Metal fire extinguisher & extinguishing agent.
Ansul Chemical Co.
MIGHTY-LITE — Portable resuscitator.
Oxygen Equipment & Service Co.
MINABOARD—Incombustible acoustical lay-in panel.
Armstrong Cork Co.
MINUTEMAN—Portable resuscitator.
Stephenson Corp.
MINUTE MAN—Watchclocks.
Detex Watchclock Corp.
MIRACLE — Carbon tetrachloride automatic extinguisher.
M. L. Snyder & Son, Inc.
M/M—Mouth-to-mask resuscitator.
Globe Industries, Inc.
MOCOT—Finger cots.
Wheeler Protective Apparel, Inc.
MODULARM—Fire alarm systems.
S. H. Couch Co.
MONARCH—Fire hose, booster hose.
Hewitt Robins, Inc., Hewitt Rubber Div.
MONITOR — Dry chemical extinguishers.
Ansul Chemical Co.
MOTRAC — Transistorized 2-way radio.
Motorola Communications & Electronics, Inc.
MOUNTIE—Electric hand lamps.
U-C Lite Mfg. Co.
MSCO—Burn dressings, blankets, first aid kits, burn medicants, stretchers.
Medical Supply Co.
MUELLER—Check valves, hydrants, gate valves, indicator posts.
Mueller Co.
MULSIFYRE—Water spray system & nozzles.
Grinnell Co.
MULTI-LEVEL — 2-level ambulance cots.
Bomgardner Mfg. Co.
MULTIMATIC—Deluge valve.
Grinnell Co., Inc.
MULTIVERSAL—Deluge nozzle.
Akron Brass Mfg. Co.
MULTITROL — Deluge & dry pipe systems.
Grinnell Co.
MUNICIPAL—Hose.
Hewitt Robins, Inc., Hewitt Rubber Div.
M-X — Extinguisher for magnesium chip fires.
Fyr-Fyter Co.
MYERS—Nozzles, pumps.
F. E. Myers & Bro. Co.
MYSTERY—Nozzles.
Elkhart Brass Mfg. Co.

N

N-CO-BELL—Audible signal devices.
Notifier Corp.
N-CO-PLUG—Plug-in.
Notifier Corp.
N-CO-STAT—Fire detection sensing unit.
Notifier Corp.
N-CO-SWITCH — Sprinkler supervisory device.
Notifier Corp.
NATIONAL—Chemical foam.
National Foam System, Inc.
NATIONAL MINUTE MAN—Ambulances.
National Coaches, Inc.
NAUTILUS—Water extinguishers.
Badger Fire Extinguisher Co.
NEW EASY—Forcible entry tools.
H. K. Porter, Inc., P-F Div.
NEWMAN—Watchclock.
Detex Watchclock Corp.
NICEROL—Foam liquid.
General Fire Extinguisher Corp.
NIF—Industrial fog nozzles.
Fyr-Fyter Co.
NO FLAME—Fire blanket.
A. E. Halperin Co.
NORTH AMERICAN—Sirens, warning lights.
North American Signal Co.
NORTH WIND—CO_2 extinguishers.
Badger Fire Extinguisher Co.
NOTIFIER — Alarm systems, break glass stations, sprinkler & fire detection systems, sirens.
Notifier Corp.
NSA—Smoking receptacle.
Notte Safety Appliances Co.
NUCLEAR SENTRY — Automatic fire detection & alarm systems.
Pyrotronics Div., Baker Industries
NU-ELK—Shutoff nozzles.
Elkhart Brass Mfg. Co.

O

OHIO — Oxygen, oxygen therapy & resuscitation apparatus.
(E&J) Ohio Chemical & Surgical Equipment Co.
OIL CHEM—Plastic aprons & clothing.
Safety Clothing & Equipment Co.
OLD-HICKORY—Safety apparel.
Industrial Gloves Co.
OLD RELIABLE — Wood & metal ladders.
Goshen Mfg. Co.
OLYMPIA—Floodlights.
Benjamin Div., Thomas Industries
ONEIDA—2½-gallon pump tank extinguishers.
D. B. Smith & Co.
OREN—Pumpers, tank trucks, motor apparatus.
Oren Roanoke Corp.
OUTDOOR—Antifreeze extinguisher.
M. L. Snyder & Son, Inc.
OXY-AID—Emergency inhalator.
Oxygen Equipment & Service Co.
OXEQUIP — Oxygen therapy equipment.
Oxygen Equipment & Service Co.
OXY-QUIK—Emergency inhalator.
Oxygen Equipment & Service Co.

P

PAC-KIT—First aid kits.
Pac-Kit Co.
PAK-ALARM—Air unit alarm.
Scott Aviation Corp.
PATROL—Watchclock system.
Detex Watchclock Corp.
P.D.Q.—Nozzles.
Akron Brass Mfg. Co.
PENETRATOR—Electronic siren.
Fyr-Fyter Co.
PENETRO-WET—Wetting agent.
S. G. Stevens Co.
PENGUIN—Antifreeze cartridge extinguisher.
Badger Fire Extinguisher Co.
PENTRATE—Wetting agent.
American LaFrance
PERFECTION—Oily waste cans.
Geo. W. Diener Mfg. Co.
PERKINS—Hand emergency lights.
Perkins Battery Co.
PERMA-KAN—Waste receptacles.
Safety Floor Products Co.
P-F—Rescue kits.
H. K. Porter, Inc., P-F Div.
PHILCO—Closed-circuit television.
Philco Corp.
PHON-O-MATIC — Automatic & phone fire & security reporting systems.
Notifier Corp.
PIONEER—Fire pumps.
Western Fire Equipment Co.
PIRSCH — Pumpers, tank trucks, aerial ladders, ground fire ladders.
Peter Pirsch & Sons Co.
P-K—Burn ointment.
Pac-Kit Co.
PLASTIC SEAL—Badges.
Award Incentives, Inc.
PLUS-FIFTY-B — Dry chemical extinguishing agent.
Ansul Chemical Co.
PNEOLATOR—Resuscitator.
Mine Safety Appliances Co.
POCKETAIRE — Oxygen-breathing equipment.
Cyclo-Flo Co.
Rockwood Sprinkler Co.
POINTER—Fire hose.
Boston Woven Hose & Rubber Div., American Biltrite Rubber Co.
POMONA—Fire pumps.
Fairbanks, Morse & Co.
PORTA-CHIEF—Portable public address system.
Audio Equipment Co.

continued on next page

Directory of Trade Names

continued from page 93

PORTALITE—Rechargeable & dry battery hand lights.
Carpenter Mfg. Co.
PORTO PUMP—Portable fire pump.
Porto Pump, Inc.
PORTO PUMPER—Trailerized fire-fighting equipment, palletized equipment.
Porto Pump, Inc.
PORTO-RAK—Hose storage racks.
Circul-Air Corp.
PORTO-SCREEN — Portable floor screen.
Frommelt Industries.
POWERON—Water spray nozzle for electrical equipment.
American LaFrance
POWHATAN—Sprinkler valves, fire hose valves.
Powhatan Brass & Iron Works, Inc.
PRES'D AIR—Demand breathing apparatus.
Acme Protection Equipment Co.
PRESUR-PAK — Pressure demand breathing apparatus.
Scott Aviation Corp.
PRINCETON—Fire hose.
Hewitt Robins, Inc., Hewitt Rubber Div.
PROTECTOCOTE—Neoprene clothing.
American Optical Co.
PROTECT-A-VALVE — Gas mask valve protection assembly & accessories for respiratory equipment.
Acme Protection Equipment Co.
PROTECTION—Safety cans.
Geo. W. Diener Mfg. Co.
PROTECTOFOAM — Built-in air foam systems, foam nozzles.
Grinnell Co.
PROTECTOSEAL — Safety cans, safety tanks, waste disposal units.
Protectoseal Co.
PROTECTOSPRAY — Water spray system & nozzles.
Grinnell Co.
PUR-A-WELD—Gas mask for welding.
Acme Protection Equipment Co.
PYDRAUL — Fire-resistant hydraulic fluids.
Monsanto Chemical Co.
PYLE—Floodlights.
Pyle-National Co.
PYLE-NATIONAL—Floodlights, gyralites.
Pyle-National Co.
PYR-A-LARM — Automatic fire detection & alarm systems.
Pyrotronics Div., Baker Industries
PYRENE—Vaporizing liquid, chlorobromomethane, soda-acid, water, antifreeze water & chemical foam extinguishers; extinguishing powder for magnesium fires; air foam compounds; air foam play pipes; built-in air foam fire extinguishing systems.
Fyr-Fyter Co.
PYRODYNE—Wet water cartridge.
Aquadyne Corp.
PYROSOL—Wet water concentrate.
Aquadyne Corp.

Q

QUADWAY—Fog nozzles.
Fyr-Fyter Co.
QUARTZOID—Sprinkler system.
Grinnell Co.
QUICK-AID — CO_2, dry chemical, foam, soda-acid, vaporizing liquid, water, wheeled, knapsack extinguishers, unlined linen hose.
General Fire Extinguisher Corp.
QUICK SERVICE—Oily waste cans.
Geo. W. Diener Mfg. Co.

R

RAISLER—Automatic sprinkler systems & valves, fire protection systems, sprinkler heads.
Raisler Sprinkler Div., Raisler Corp.
RANDOLPH — CO_2 extinguishers, wheeled CO_2 extinguishers.
Randolph Laboratories, Inc.
RAY-FOIL — Portable heat-resistant fire shields, curtains, blankets.
Frommelt Industries.
RAY-TEX—Fire curtains.
Frommelt Industries.
RECORDALARM—Alarm system.
Gamewell Co.
RED COMET—Vaporizing liquid fire extinguisher.
Red Comet, Inc.
REEL KING—Fire hose.
Boston Woven Hose & Rubber Div., American Biltrite Rubber Co.
REEL QUEEN—Fire hose.
Boston Woven Hose & Rubber Div., American Biltrite Rubber Co.
REEVES—Stretchers, salvage covers, welding curtains.
A. Smith & Son, Inc.
REGENT—Fire hose & extinguisher cabinets, pin hose racks.
Wirt & Knox Mfg. Co.
RELIABLE—Sprinkler heads, valves & systems.
Reliable Automatic Sprinkler Co.
RELIEF—Fire hose.
Republic Rubber Div., Lee Rubber & Tire Corp.
RENDEIN—Unlined linen fire hose.
Chas. Niedner's Sons Co.
REPUBLIC—Fire engine hose.
Republic Rubber Div., Lee Rubber & Tire Corp.
RESCUE BREATHER — Adjunctive equipment for mouth-to-mouth resuscitation.
Medical Supply Co.
RES-Q—Rescue truck.
Christopher Co.
REVIV-A-LIFE—Resuscitators.
Oxygen Equipment & Service Co.
R/M—Asbestos products.
Raybestos-Manhattan, Inc.
ROCKER-LUG—Coupling.
Akron Brass Mfg. Co.
ROCKER-RING—Coupling.
Akron Brass Mfg. Co.
ROCKWOOD — Nozzles, sprinklers, oxygen breathing equipment.
Rockwood Sprinkler Co.
ROCKWOOD POCKETAIRE—Oxygen breathing equipment.
Rockwood Sprinkler Co.
ROTO-RAY—Warning light.
Buckeye Machine Products Corp.

S

S & S—Ambulances.
Hess & Eisenhardt Co.
SACHEM—Leader line shutoff nozzles.
Powhatan Brass & Iron Works.
SAF—Fire-retardant paints.
Alim Corp.
SAFA—Industrial fire alarm systems.
Fyr-Fyter Co.
SAFECO—Safety clothing.
Safety Clothing & Equipment Co.
SAFE GUARD—Safety containers.
General Fire Extinguisher Corp.
SAFETEX—Fire-resisting fabric.
Wamsutta/Pacific Industrial Fabrics
SAFETY FIRST—Dry chemical extinguishers.
Safety First Products Corp.
SAFE-T-CHECK—Watchclocks.
Detex Watchclock Co.
SAFE-T-METER—Dry chemical extinguishers.
Safety First Products Corp.
SAFETY-SPRAY—Fire extinguishers.
Red Comet, Inc.
SAF-T-GLO — Blaze orange rubber-coated nylon clothing.
American Optical Co.
SAMARITAN — Resuscitator-aspirator-inhalator.
Globe Industries, Inc.
SAMSON—Fire alarm systems.
S. H. Couch Co.
SANFORD — Pumpers, tank trucks, ladder trucks, high-pressure fog pumpers, helmets.
Sanford Fire Equipment Corp.
SAVEALL—Sprinklers.
Fyr-Fyter Co.
SCOTCHSHIELD—Aluminized heat-reflecting fabric.
Minnesota Mining & Mfg. Co.
SCOTT — Inhalators, respirators, breathing equipment.
Scott Aviation Corp.
SCOTTORAMIC—Face masks.
Scott Aviation Corp.
SEAGRAVE—Pumpers, tank trucks, high-pressure units, aerial ladder trucks.
Seagrave Corp.
SECO—In-plant fire trucks.
Seco Mfg., Inc.
SEELER—Universal resuscitator.
Globe Industries, Inc.
SEE-O—Gas mask canisters.
Acme Protection Equipment Co.
SELECT-FLO—Nozzles.
Fyr-Fyter Co.
SELECT-O-FLOW—Fog nozzles.
Elkhart Brass Mfg. Co.
SELECT-O-STREAM—Fog nozzles.
Elkhart Brass Mfg. Co.
SELFCON—Water spray system.
Grinnell Co.
SENTINEL—Ambulances.
Miller-Meteor Div., Divco-Wayne Corp.
SENTRY — Stored pressure extinguishers.
Ansul Chemical Co.

SENTRY—Automatic shutoff valves.
Coppus Engineering Corp.
SENTRY-LITE—Emergency lights.
American Optical Co.
SFL—Fog nozzles.
Elkhart Brass Mfg. Co.
SHARPSVILLE—Motorized fire apparatus.
Sharpsville Steel Fabricators, Inc.
SHORT SNORTER—Quick entry & escape mask.
Globe Industries, Inc.
SHUREDRY—Fire blankets, covers.
Fulton Cotton Mills.
SILVABESTOS—Asbestos clothing fabric.
Raybestos-Manhattan, Inc.
SILVER SPRAY—Fire extinguisher.
Red Comet, Inc.
SIMPLEX—Dry-pipe sprinkler system.
Grinnell Co.
SIPCO—Smoking receptacles.
Standard Industrial Products Co.
SIREN-MASTER—Sirens.
North American Signal Co.
SIRO-DRIFT—Sirens.
B & M Siren Mfg. Co.
SKA-PAK — Self-contained escape breathing apparatus.
Scott Aviation Corp.
SKI-20—Firefighter.
John Bean Div.,
Food Machinery & Chemical Corp.
SKULLGARDS—Hard hats.
Mine Safety Appliances Co.
SLIDEWELL—Couplings.
Elkhart Brass Mfg. Co.
SMITH—Fire nozzles.
D. B. Smith & Co.
SMOKE-EATER—Gas masks.
E. D. Bullard Co.
SMOKE SENTRY—Smoke detector.
Minneapolis-Honeywell Regulator Co.
SNIFFER—Gas detector.
Johnson-Williams, Inc.
SNO-FOAM—Foam nozzles.
Cardox Div., Chemetron Corp.
SNO-FOG—CO_2 extinguishers.
General Fire Extinguisher Corp.
SNP—Horns.
Benjamin Div., Thomas Industries
SNYDER STANDARD—Fire hose, firemen's clothing & boots.
M. L. Snyder & Son, Inc.
SOS—Fog nozzles.
Elkhart Brass Mfg. Co.
SPA-FLA—Welding curtains, salvage covers, shields.
Frommelt Industries
SPARTAN—Watchclocks.
Detex Watchclock Corp.
SPARTAN SPECIAL—Watchclocks.
Detex Watchclock Corp.
SPEC MASK—Gas masks for wear over prescription glasses.
Acme Protection Equipment Co.
SPEED-O-TWO—Inhalators.
Geo. W. Diener Mfg. Co.
SPRINKLARM—Alarm system.
Rockwood Sprinkler Co.
SPRINKLER WATCHMAN—Automatic alarm system.
Gamewell Co.
SQUEEZE GRIP—CO_2 extinguishers.
Fyr-Fyter Co.
SSS—Fire boots & coats.
Goodall Rubber Co.
S-T—Ratchet hydrant wrench.
S-T Hydrant Wrench Co.
STA 35—Firefighters.
John Bean Div.,
Food Machinery & Chemical Corp.
STA 60—Firefighters.
John Bean Div.,
Food Machinery & Chemical Corp.
STANDARD—Fire alarm, signals.
Standard Fire Alarm & Signal, Inc.
STAR—Sprinkler heads, foam-water sprinklers, valves, automatic systems.
Star Sprinkler Corp.
STARGARD—Sprinklers.
Star Sprinkler Corp.
STA SAFE—Welding curtains, blankets.
Standard Safety Equipment Co.
STATIKIL—Static neutralizer.
Statikil, Inc.
STEBCO—Rescue kits, tools.
Stebco Industries, Inc.
STEEL-GRIP—Safety apparel.
Industrial Gloves Co.
STEMFIRE—Soda-acid machines.
M. L. Snyder & Son, Inc.
STEMPEL—Fire extinguishers, hose reel extinguishers, unlined linen hose, emergency lighting units, oily waste cans, liquid & powder foam generators, safety cans.
M. L. Snyder & Son, Inc.
STEPHENSON—Inhalators, resuscitators, demand inhalators.
Stephenson Corp.
STERLING—Fire alarms.
Sterling Siren Alarm Co.

continued on next page

LOWEST COST REVOLVING WARNING LIGHT

The ideal warning light, a sure traffic opener for Volunteer Firemen, Civil Defense, and emergency use. 90 sharp impulses per minute—6 or 12 volt. Red, Blue or Amber dome. Fully guaranteed against manufacturer's defects.

Contact your Dealer or write

NORTH AMERICAN SIGNAL COMPANY
909 W. Randolph St., Chicago 7, Ill.

Circle No. 85 on reader service card

Industrial and Municipal

Brass Fire Fighting Equipment

by POWHATAN

Manufacturers of a complete line, including:

1. Fire Hose Nozzles
2. Hose Couplings and Appliances
3. Siamese and Connections

Same Location Since 1892

Our complete Catalog B will be sent upon request.

POWHATAN
BRASS and IRON WORKS
Ranson, West Virginia

Circle No. 86 on reader service card

save life & property with New Model Falcon®

- Simple visual inspection with new sight glass—added neatness of design.

No one can place a price on the possible loss of lives due to fire. But Falcon Automatic Fire Alarms & Systems can give early warning of fire to protect lives and guard property.

Falcon Automatic Fire Alarms and Systems are:

- **LISTED BY UL AND ULC for use with 600 ft. of ¼" aluminum tubing**
- **SELF-CONTAINED (No wires or batteries)**
- **FULLY GUARANTEED**

. . . and they are low in cost!

Dealers Wanted

WRITE for particulars — and free, informative "Sounds for Safety" folder! Dept. OH

Falcon® ALARM CO., INC.
SUMMIT, NEW JERSEY

Circle No. 87 on reader service card

Directory of Trade Names

continued from page 95

STOP-FIRE — CO_2, dry chemical, foam, soda-acid, vaporizing liquid & water extinguishers.
Stop-Fire, Inc.

STRETCH 'R-CHAIR—Combination stretcher & invalid chair.
Ferno Mfg. Co.

SUPERFLAT—Fire hose.
General Fire Extinguisher Corp.

SUPER FORGE—Drop forged couplings.
Powhatan Brass & Iron Works

SUPER FYR-FLEX—Dacron hose.
Fyr-Fyter Co.

SUPER FYR STRYPE—Dacron fire hose.
Fyr-Fyter Co.

SUPERGARD—Finger & body protectors.
Industrial Gloves Co.

SUPERIOR—Ambulance.
Superior Coach Corp.

SUPROTEX—Deluge sprinkler system.
Automatic Sprinkler Corp. of America

SURFAX—Wetting agent.
E. F. Houghton & Co.

SWABETTE—Antiseptic swabs.
Davis Emergency Equipment Co.

SWEPT-WHEEL — Station wagon ambulance cots.
Bomgardner Mfg. Co.

SWP—Fire alarm (industrial), horns.
Benjamin Div., Thomas Industries

SYSTEMETTE—Hose carts.
Randolph Laboratories, Inc.

T

TAN-A-BURN—Burn medicant.
Medical Supply Co.

TANNOID—Burn medicant.
Davis Emergency Equipment Co.

TELETHERM — Automatic alarm system.
American District Telegraph Co.

THERMALAIR — Heat exchanger respirator.
American Optical Co.

THERMOGARB—Asbestos clothing.
American Optical Co.

THERMOSWITCH — Temperature control switches.
Fenwal, Inc.

3XF—Fire-resistant hydraulic fluid.
Shell Oil Co.

TIGER—Rubber-lined cotton hose.
American Rubber Mfg. Co.

TOGGLEMATIC—Expander.
Fyr-Fyter Co.

TOKHEIM — Petroleum dispensing equipment.
Tokheim Corp.

TOP-NOTCH—Industrial clothing & footwear.
Beacon Falls Rubber Footwear

TOP NOTCH SIREN — Firemen's boots.
Beacon Falls Rubber Footwear

TORRENT—Portable pumping units.
Hale Fire Pump Co.

TOWER—Chemical hose.
Republic Rubber Div., Lee Rubber & Tire Corp.

T-POWER—2-way radios.
Motorola Communications & Electronics, Inc.

TRANSISTA FLASH — Transistorized barricade flashers.
U-C Lite Mfg. Co.

TRAVERTONE — Incombustible acoustical ceiling tile.
Armstrong Cork Co.

TRD 20—Firefighter.
John Bean Div., Food Machinery & Chemical Corp.

TRI-LOC—Nozzle holder.
Elkhart Brass Mfg. Co.

TROJAN—Sprinkler system.
Automatic Sprinkler Corp. of America

TRUMPET BRAND—Cast & forged brass fire equipment.
Fyr-Fyter Co.

TYPE FD—Gas mask canisters.
Acme Protection Equipment Co.

TYPE N—Gas mask canisters.
Acme Protection Equipment Co.

U

UCON—Fire-resistant hydraulic fluids.
Union Carbide Chemicals Corp.

UNDERWRITERS'—Fire hose.
Republic Rubber Div., Lee Rubber & Tire Corp.

"KERODEX" PROTECTS AGAINST...
(partial list)

"KERODEX" #71
ACIDS
AMMONIA
ANILINE DYES
BATTERY ACIDS
CAUSTIC SODA
CEMENT (Wet or Dry Powder)
DETERGENTS
DYES (aqueous)
EPOXY RESINS
FORMALDEHYDE
PAINTS (water base)
PLATING SOLUTIONS
RUST PREVENTATIVES
SALTS
SILICATES
SOLDERING FLUXES, FUMES, PASTE
STEEL PICKLING
SULFURIC ACID
UREA — FORMALDEHYDE GLUES

"KERODEX" #51
ACETONE
ALKALIS
BENZOLS
CARBON TETRACHLORIDE
CELLULOSE SOLVENTS
CUTTING OILS (lubricants)
EMERY DUSTS
ETHYL ACETATE
FIBER GLASS
GREASES
GRIME
LACQUERS
LEAD DUST and FUMES
PAINTS (oil)
PAINT REMOVERS (solvent)
PLASTICIZERS
RUBBER SOLUTIONS
TAR
THINNERS

6111

EVEN FULL STRENGTH HYDROCHLORIC ACID CANNOT TOUCH THIS HAND... ...PROTECTED WITH "KERODEX"®

This dramatic 60 second laboratory test proves the superior protective qualities of "KERODEX" #71. Note: In working with hydrochloric acid, standard safety precautions should always be observed.

IN-PLANT TESTING OFFER AVAILABLE. "KERODEX" Protective Barrier Cream is used in laboratories and factories of America's largest manufacturers . . . to speed hazardous processes, cut down wash-up time, save expensive soaps, cleaners and solvents. Available as "KERODEX" #71 for wet work, "KERODEX" #51 for dry work. To prove the worth of "KERODEX" in your plant, order this test offer.

ONE DOZEN 1/4 LB. TUBES OF #71 OR #51 FOR ONLY $10.80
FREE INFORMATION IS AVAILABLE TO YOU—WRITE FOR IT

Write Dept. OH-6

"KERODEX" is sold only by AYERST LABORATORIES • 22 East 40th Street, New York 16, N.Y.

Circle No. 88 on reader service card

UNDERWRITERS' — Couplings & nozzles.
Fyr-Fyter Co.
UNETTE—Burn ointment tubes.
Davis Emergency Equipment Co.
UNIPLAST—First aid supplies.
A. E. Halperin Co.
UNIVERSAL — Boyer model fire pumpers, industrial crash, tanker & ladder trucks.
Universal Fire Apparatus Corp.
UN-O-MATIC — Auxiliary control panels.
Notifier Corp.
UNOX—Wetting agent & foam.
Akron Brass Mfg. Co.
URAB—Brush killer.
General Chemical Div.,
Allied Chemical Corp.
UROX—Long-term weed killer.
General Chemical Div.,
Allied Chemical Corp.
UTILIPORT—Light folding stretcher.
Medical Supply Co.
UTILITY—Floodlights.
Benjamin Div., Thomas Industries

V

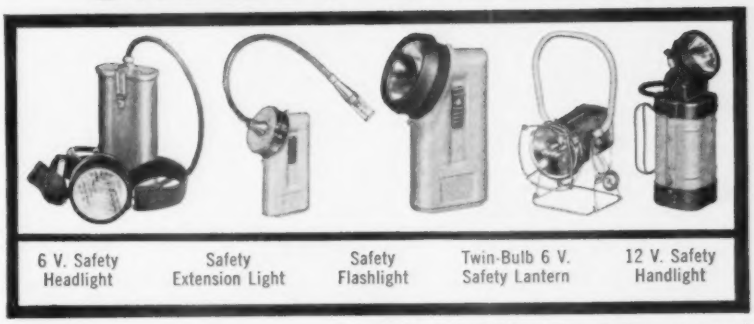
VALLEY—Fire trucks.
Valley Fire Truck Co.
VAPOTESTER—Combustible gas indicator.
Davis Emergency Equipment Co.
VARI-A-FOG—Fire nozzles.
Fyr-Fyter Co.
VASELINE—Sterile burn dressings.
Chesebrough-Pond's, Inc.
"V" BLADE—Rescue knife.
Stebco Industries, Inc.
VENT-A-DRUM — Safety vent for drums containing flammable liquids.
Central Safety Equipment Co.
VERIBEST—Vaporizing liquid pump extinguisher.
M. L. Snyder & Son, Inc.
VERSATILE POWER — Portable power unit pump.
National Alarms Corp.
VIBRATONE—Alarm horns.
Federal Sign & Signal Corp.
VIGILANT—Extinguisher tubing.
Boston Woven Hose & Rubber Div.,
American Biltrite Rubber Co.
VIGILARM—Alarm system.
Gamewell Co.
VIKING — Automatic sprinkler systems.
Viking Corp.
VITAGUARD—Alarm system.
Gamewell Co.
VOCALARM—Alarm system.
Gamewell Co.
VOICE-PAK — Speaking device for use with self-contained breathing apparatus.
Scott Aviation Corp.
VOLUNTEER—Ambulances.
Miller-Meteor Div.,
Divco-Wayne Corp.
VOLUNTEER SEELER — Resuscitator.
Globe Industries, Inc.
VON DUPRIN—Fire door hardware.
Vonnegut Hardware Co.,
Von Duprin Div.

continued on next page

Circle No. 89 on reader service card

JUSTRITE

...America's greatest name in
SAFETY LIGHTS!

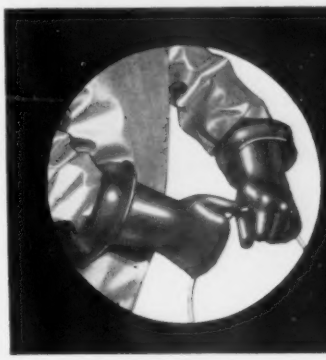


FREE!
A complete 16-page, illustrated, descriptive Catalog, including a comprehensive table of operating data on dry batteries and lamps.

The hazards of fire and explosion are two of the greatest dangers to plant safety. For more than 50 years, JUSTRITE has specialized in the development and manufacture of portable safety lights that meet the most rigid safety requirements and are easy to handle, resulting in employee approval. Why not standardize on the safety equipment that has been proved in thousands of situations? It's no wonder that safety engineers say "JUSTRITE is all right!"

JUSTRITE MANUFACTURING COMPANY | **WORLD'S STANDARD OF SAFETY SINCE 1906**

2061 NORTH SOUTHPORT AVENUE • CHICAGO 14, ILLINOIS



put your production
IN SAFE HANDS
with SURETY
SURESEAL GLOVES

SURESEAL MOST SPECIFIED WHERE

- ✔ **the handling of acids and other corrosive materials demand maximum hand protection.**
- ✔ **production requirements prescribe fast, sure handling of caustic liquids.**
- ✔ **positive protection against crippling and disfiguring accidents is a necessity.**
- ✔ **longer glove life is needed.**

Surety Sureseal Gloves, (made from Hycar) give positive protection against the greatest number of acids and other corrosive liquids and wear up to 14 times longer than competitive materials. They are more snag, abrasion and puncture-proof and the exclusive Surety Turn-Cuff gives added protection for arms and prevents liquid from getting into the glove.

Tell us your requirements and test a pair today — at our expense. Write on your letterhead naming your glove jobber and you will receive a pair by return mail.

THE SURETY RUBBER CO.
CARROLLTON, OHIO

IN CANADA: Safety Supply Co., Toronto

Circle No. 90 on reader service card

Directory of Trade Names

continued from page 97

W

WASHREEL—Wash-up hose reel.
Wirt & Knox Mfg. Co.
WASH-UP REEL—Wash-up hose reel.
Clifford B. Hannay & Son, Inc.
WATCHMASTER—Emergency lighting.
Carpenter Mfg. Co.
WATER FOG—Fog nozzles.
Rockwood Sprinkler Co.
WATEROUS DEPENDABLE—Pumps, hydrants.
Waterous Co.
WATER WETTER—Wetting agent.
M. L. Snyder & Son, Inc.
WELD-TEX—Vinyl-coated glass fabric.
Frommelt Industries
WELDERZADE—Coated glass cloth welders' garment.
Fyrepel Products, Inc.
WESTCO—Fire pumps.
Fairbanks, Morse & Co.
WET—Wetting agent.
Rockwood Sprinkler Co.
WHEAT—Miner's cap electric light, rechargeable spotlight.
Koehler Mfg. Co.
WHEELER—Fire & safety clothing, fire rescue suits, blankets, power megaphones.
Wheeler Protective Apparel, Inc.
WIRE TRUSSED—Wood extension ladders.
Goshen Mfg. Co.
WIRTS—Continuous flow hose reels, carts, cabinets, wash reels, racks, extinguishers, crowbars, fire hose valves, unlined linen hose, trailerized fire equipment, spray nozzles.
Wirt & Knox Mfg. Co.

Chemical safety improves

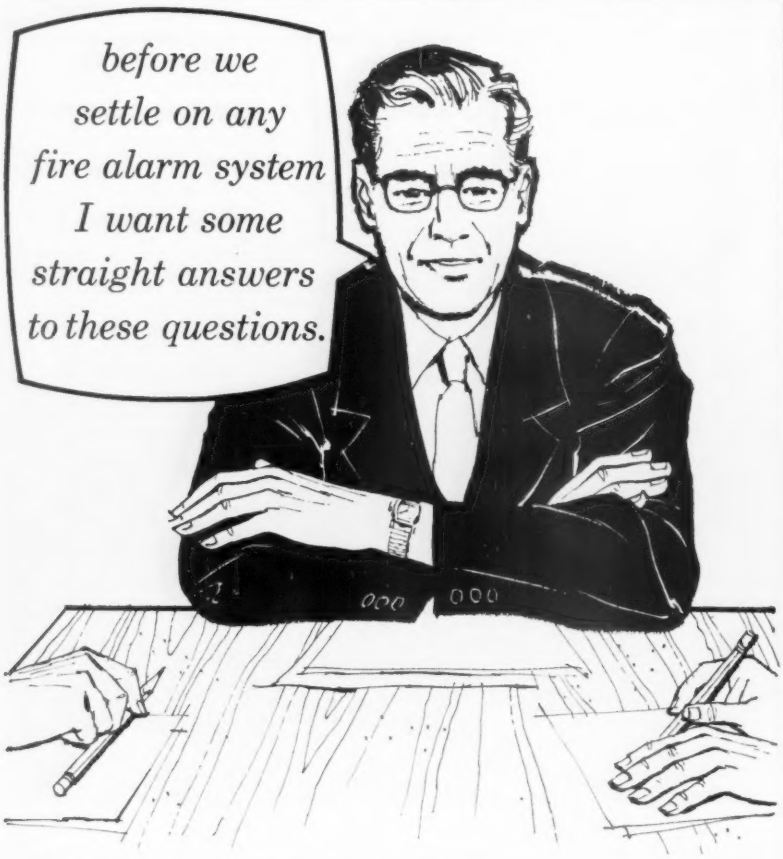
The Manufacturing Chemists' Association announced recently that 1960 accident frequency in the chemical industry was 3.19. In 1959, it was 3.38. Best record for the industry was made in 1958, when frequency was 2.98.

WITT—Oily waste cans, waste disposal units, covers for cans & drums.
Witt Cornice Co.
WOOSTER—Cast & forged brass fire equipment.
Fyr-Fyter Co.
WOVEN-GARD—Hand & arm protectors.
Industrial Gloves Co.

X-Y-Z

X-TRUDE—Couplings.
Elkhart Brass Mfg. Co.
YELLOW FLASH 8—Hand light.
Justrite Mfg. Co.
YELLOW JACKET—Hand light.
Justrite Mfg. Co.
YORKLITE—Hand emergency lights.
Perkins Battery Co.
ZEPHYRAIR—Compressed air mask.
Acme Protection Equipment Co.
ZONALARM—Fire locating system.
Edwards Co. • •

"Put on your safety hat, boy! Here comes a woodpecker."



- Will it automatically detect fires or does someone have to first see the fire or smell the smoke?
- Will it automatically sound the alarm or does someone have to pull a rope or lever to signal the danger?
- Will everyone be able to hear the signals in all parts of the building?
- Will the system automatically call the fire department, or must someone try to reach the fire station by phone?
- Will the fire alarm system automatically tell us (and the fire department) if and when it isn't working... or do we just assume we're still protected?

Questions like these deserve **straight** answers. Precious lives are at stake.

Autocall®
SAFEGUARDS MILLIONS

THE AUTOCALL COMPANY • SHELBY 2, OHIO
SALES OFFICES IN PRINCIPAL CITIES
Circle No. 92 on reader service card

Circle No. 93 on reader service card

On-The-Spot FIRST AID
. . . when it counts
PAC-KIT®

Instantly avails supplies and accessories for emergency care of burns, cuts, bruises, lacerations, superficial eye injuries, uncontrolled bleeding, fainting, fractures and allied injuries common to industry.

PAC-KITS are indispensable where shops lack medical facilities.

Average fellow worker can instantly apply any of the various replaceable items contained in the heavy-duty dustproof, moistureproof cabinet.

WRITE TODAY for description of 4 available sizes and prices.

Pac-Kit Safety Equipment Co.
P. O. Box 1306 Greenwich, Conn.

MARTINDALE
DUST MASKS

Real protection at low cost

So easy to wear, yet large filter area gives positive protection against over 400 nuisance dusts. Mask weighs less than 1/2 ounce. Easy press-fit contour adjustment, fits any head size. Replaceable throw-away filter pads — only clean gauze touches the face. Satisfied users everywhere.

Protective Masks .....$ .30 ea.
No. 1 Refills (standard wt.) ... .02 ea.
No. 2 Refills (double-thick pad) .02½ ea.
Masks packed in individual envelopes. Refills packed 25 to a box. Minimum charge of C.O.D., $2.00. Minimum cash with order, $1.00. Postage paid on all cash orders.

QUANTITY DISCOUNTS AVAILABLE

MARTINDALE ELECTRIC CO.
1311 Hird Ave. Cleveland 7, O.

Circle No. 95 on reader service card

TURTLE CLUB

John A. Milan was walking under the coal breaker conveyor when a 4-pound piece of coal fell 40 feet and beaned him. The coal ricocheted off his safety hat, and a serious head injury was prevented. Location was Public Service Electric & Gas Co., Ridgefield, N.J.

Guy F. Webb at the Fisher Contracting Co., Phoenix, was unloading lumber from a truck. The chain used to straighten the lumber broke, and the hook struck Webb on the head. The impact knocked him unconscious. His safety hat protected him from severe head injury.

A ¾-inch pipe fell 36 feet from an elevated platform, making a direct hit on *William E. Fletcher's* head. He was staggered by the blow, but his safety hat took the punishment, not his head. Continental Oil Co., Ponca City, Okla., was the scene.

Donald Forbes, Chevrolet Saginaw Grey Iron Foundry, Saginaw, Mich., was working on the floor and in loading bins. The roof collapsed and pieces of concrete, roof slabs, and steelwork struck Forbes on the head. His safety hat cushioned the blow, protected him from fatal head injury.

John E. Rogers, Central Illinois Light Co., Peoria, was working at the bottom of a 40-foot pole. At the top of the pole a lineman lost his grip on a 12-inch wrench. This misguided missile gave Rogers a crowning blow on the head. His safety hat pulled him through without injury.

Clark Knight of Mid-Valley, Inc., (Brown & Root, Inc.), Houston, stood on a beam below a wharf. A 75-pound concrete block toppled from above. Its sharp corner made a direct hit on Knight's head. His safety cap cushioned the blow, protected him from severe head injury.

Air hammers vibrated a 12-pound piece of steel loose from its shelf in the Dow Chemical Co. plant at Freeport, Tex. The steel fell 4 feet, struck *Gerald Hodges'* hard hat. He was not badly hurt.

Circle No. 94 on reader service card

Acid-Resistant and STATIC-FREE!
100% Dynel, Anti-Static
CHEM-WEAR
UNION MADE ®
WORK CLOTHES

Nationally famous CHEM-WEAR work clothes repel acids, caustics and stains . . . and do not support combustion. Wear safe, always comfortable CHEM-WEAR Shirts, Trousers, Coveralls, Laboratory Coats and Work Aprons.

PERMANENTLY FLAMEPROOFED Work Clothing
Protects from the danger of spot welding and light metal splash, etc.

Write for New Catalog

Quality Since 1896

If Not Available at Your Safety Dealer Write to
M. SETLOW & SON, Inc.
PLANTS: ORANGE, CONN. & PROSPERITY, S.C.
Mailing Address: P.O. BOX 1784, NEW HAVEN, CONN.

STOP STATIC ELECTRICITY WITH STATIKIL
PUSH BUTTON & SPRAY
TRADEMARK
Reg. in U. S. Pat. Off.
THE ORIGINAL—THE ONLY

$3 a can
$30 a doz. (spray)
$15 a gal. (fluid)

Use Statikil to curb dangerous fires and explosions caused by static charges generated by friction. Simply spray or swab lightly on moving parts, machinery, doorknobs, floors, stairs, rolling castors. The ideal spark retardent for arsenals, chemical, petroleum, petrochemical and mining industries. Stops shocks to people susceptible to static electricity. Effectiveness thoroughly proven by constant use in hundreds of plants. Send for a trial order today.

MAIL COUPON TODAY!

STATIKIL, INC. 1220 W. 6th St. Cleveland 13, O.

Send the following (please check)
☐ Free Literature ☐ One can spray @ $3
☐ One case of spray cans @ $30
☐ One bulk gallon @ $15

Name .....
Company .....
Address .....
City ..... State .....

USED BY THOUSANDS OF LEADING PLANTS

Circle No. 96 on reader service card

Circle No. 97 on reader service card

GRAYMILLS
CLEAN-O-MATIC
PARTS WASHERS

When faced with cleaning dies, gears, bearings, motor parts, machined parts, cavities, blind holes, assemblies and other parts that require individual handling, you can do it better and safer with CLEAN-O-MATIC. They have more features and are lower priced!

CLEAN-O-MATICS are built so rugged . . . and so dependable, the pump and tank carry a 5-year warranty.

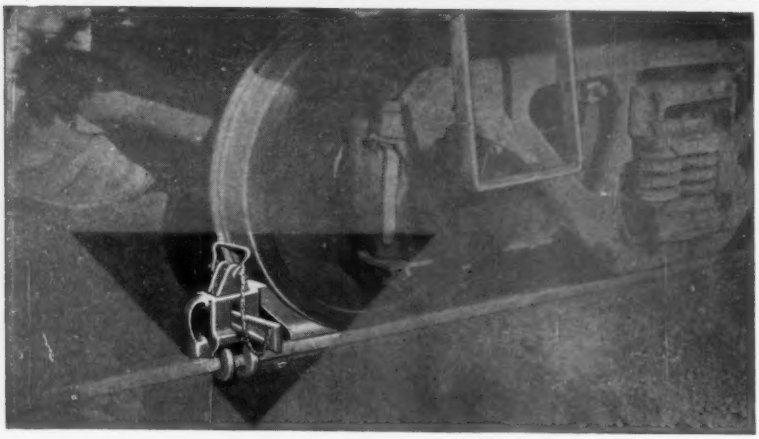
SOLD BY LEADING INDUSTRIAL DISTRIBUTORS . . . FROM COAST TO COAST!

- **AUTOMATIC SAFETY COVER** with fusible link to reduce fire hazard. Self setting with thumb release. Can be operated with one hand from front of unit.
- **SANITARY—EASY TO CLEAN** . . . Solvent filter located above liquid level. Replaceable filter cartridge. Removable sludge trays. Tank drain
- **NO-FATIGUE WORKING HEIGHT.** Unit uses cold solvents. Eliminates toxic vapors. No heating or rusting.
- **3-WAY CLEANING ACTION** . . . jet-spray pistol-grip nozzle, steady flow metal flush hose and hydraulic or air agitated soak tanks.

. . . plus many more. Write for complete catalog on 4 low cost models. Also safety solvents and safety soak tanks.

GRAY-MILLS GRAYMILLS CORPORATION / 3661 N. LINCOLN AVE. CHICAGO 13, ILLINOIS

Clean it easier, faster and better . . . with a CLEAN-O-MATIC



M & M RAIL CLAMP

gives you positive protection against derailments

You can rely on this compact, low cost M & M Rail Clamp to hold car wheels fast—even under heavy loads on a grade! This dependable performance reduces danger of costly derailments, runaway cars and injuries to workers. Simple design and rugged construction make it easy to use. Clamp can be positioned quickly—no ties, blocks or shims necessary. Made to fit *any* rail, new or worn, the M & M Rail Clamp is available in two sizes: Model A—40-100 lb. rail; Model F—110-174 lb. rail. *Write for further details and prices.*

SAFETY FIRST SUPPLY COMPANY

425 Magee St., Pittsburgh 19, Pa.

Branches at Cleveland, O., Toledo, O., and Charleston, W. Va.

Circle No. 98 on reader service card

GOLDEN SHOE CLUB

Dedicated to Foot Safety

To inquire about club membership, write:

Golden Shoe Club
1509 Washington Ave.,
St. Louis 66, Mo.

Edward Del Monte was slacking off the slings around a catapult shuttle. The 500-pound shuttle was wedged. It suddenly released and toppled. It struck Del Monte's left foot, but he was not injured, thanks to his safety shoes. Location was the Naval Air Materiel Center, Philadelphia.

At the Northrup Corp., Hawthorne, Calif., *T. M. Terry* was pushing a metal cart when the wheel came off. The tub came down on Terry's foot, cutting the steel cap of his safety shoe. No injury resulted.

For some reason, a scrap pan had been banded to scrap rod that was being lifted by a towmotor. *Randall H. Converse* cut the band that held the pan. The pan fell, mashed the steel cap of his safety shoe. Three toes were fractured. The safety director at Laclede Steel Co., Alton, Ill., is certain Concerse's safety shoe prevented more serious injury.

Wearing safety shoes saved *Oscar Underwood* from broken toes. At the General Tire & Rubber Co., Akron, he pushed a metal skid weighing 180 pounds. The skid slipped from his hands and fell, bruising 3 toes.

Robert Travis at United States Gypsum Co., Genoa, Ohio, moved bags of lime from a 500-pound manierre loader to check their weight. The man loading the boxcar accidentally backed the loader on Travis' foot. But Travis' safety shoe warded off injury.

Orville Werkmeister, National Lead Co. (Titanium Division), Arnold, Mo., was putting sheet steel into a stock rack when the steel slipped and landed on his safety shoe. Thanks to the steel cap in his shoe, no injury resulted.

LITERATURE
OFFERED IN THIS MONTH'S ADS

Sweatband: American Allsafe Co. offers free samples of its Drybrow cellulose sponge sweatband.
Circle No. 69 on reader service card

Reusable couplings: Literature on special engineering applications will be sent concerning Bar-Way Manufacturing Co.'s reusable high-pressure coupling that gives a quick, sure connection for all types of jacketed hose.
Circle No. 68 on reader service card

Slip-resistant floor polish: Legsure by Walter G. Legge Co. is slip-resistant, self-polishing, and dirt-repellant. Full information is available in a report compiled by York Research Corp. for Legge.
Circle No. 56 on reader service card

Dry chemical extinguisher: The Kiddie Kompact by Walter Kidde & Co. is claimed by the company to be high-powered fire protection at a rock-bottom price. See for yourslf; ask for literature available.
Circle No. 31 on reader service card

Detection, alarm devices: Notifier Corp. has a complete line of fire detection and notification devices, control equipment, and alarm devices. It offers to develop a system for you regardless of the size or location of your operation. The devices are described in literature that will answer your questions.
Circle No. 47 on reader service card

Touch-up kit: Catalog and details on complete line of fire and heat protective equipment are available from Fyrepel Products, Inc. The touch-up kit is an innovation that adds considerable life and efficiency to your aluminized clothing.
Circle No. 74 on reader service card

Impact protection: Equipment from E. D. Bullard Co. guards firefighters from heavy, flaming debris. Bullard fire helmets are included in the firm's fire department catalog.
Circle No. 8 on reader service card

Auto safety: "The Beam's Plan" tells you how you can get auto safety belts at special discount prices. It also provides the materials which will help you develop a successful safety belt program. These free aids are offered by Beam's.
Circle No. 80 on reader service card

Cigarette dunking stations: In its new brochure, Standard Industrial Products Co. shows how dunking stations promote good housekeeping, prevent fire hazards, reduce maintenance. Stations, constructed of heavy-duty cast aluminum, come in various models.
Circle No. 36 on reader service card

Safe lighting: U-C Lite Manufacturing Co.'s new catalog reviews its entire line of hand lamps, flares, and emergency lights.
Circle No. 50 on reader service card

Safety solvent: Vythene from Tect, Inc., a safety solvent prepared for cold-cleaning applications, is low in toxicity, nonflammable, and noncorrosive. Tect tells all about it in product literature.
Circle No. 48 on reader service card

Fire and rescue truck: Trucks of this type must be especially tailored to meet local conditions and requirements. Gerstenslager Co.'s years of experience are invaluable in helping you meet those needs. Complete details are available on the company line.
Circle No. 4 on reader service card

Electrical safety: The XL bus duct protects people, property, production, literature from Bulldog Electric Products Division tells us. Safety features are spelled out in detail.
Circle No. 9 on reader service card

Skin cleaner: Complete details on Vi-Lan, the skin cleaner that keeps workers' hands and faces free of dirt, grime, and germs, is contained in literature offered by Dameron Enterprises, Inc.
Circle No. 73 on reader service card

Hand protection: Sureseal gloves from Surety Rubber Co. protect against acids and corrosive liquids, give long wear in the bargain. Surety Rubber Co. offers literature on them as well as a sample pair.
Circle No. 90 on reader service card

ROCKWOOD

PocketAIRE

- COMPACT
- LIGHTWEIGHT
- FOR EVERY FIRE MAN
- EASY TO PUT ON ENROUTE TO FIRE

Three models . . . full 30 minutes . . . full 20 minutes and a full 10 minutes.

Now firemen can add precious minutes to their search for trapped victims. Rockwood's lightweight PocketAIRE, the most compact self-contained breathing apparatus made, permits firemen to put in action faster and work more efficiently without hindrance by bulky equipment. PocketAIRE is small enough to fit in pocket, clamp to fire coat or be worn in a shoulder harness.

What's more, by using pure, clean oxygen, PocketAIRE supplies the most concentrated, most effective element to safeguard human breathing. Another *extra* protection feature, on all PocketAIRE units, is the safety cylinder that allows 5 minutes for escape. Cost pennies to refill and no maintenance required.

Protect every fireman in your department with economical, safe, simple to use Rockwood PocketAIRE.

For more details, write to
ROCKWOOD SPRINKLER COMPANY
2026 Harlow St., Worcester 5, Mass.

PURE, CLEAN OXYGEN for Refilling is Available Everywhere!

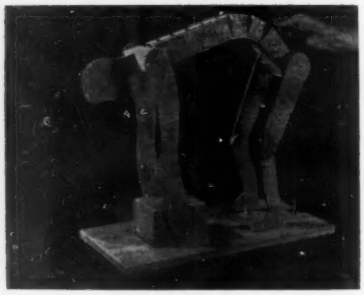
ROCKWOOD

A Division of The Gamewell Company • A Subsidiary of E. W. Bliss Company
Distributors in all principal cities.

Circle No. 54 on reader service card

Circle No. 101 on reader service card

PREVENT BACK INJURY! *SHOW* THEM HOW TO LIFT THE *RIGHT* WAY



"LIFTY"

Lifting heavy objects the wrong way can cause hernias and severe back injuries. "Lifty," the animated training tool that really puts a point across dramatically shows your workers just how such injuries are caused by incorrect lifting . . . and shows them how to lift the right way, with the legs instead of the back.

24" high, sturdy wooden construction 2 models available; clear lacquer or in 3 colors.

TRAINING AIDS

235 Iroquois Road Hillside, Illinois

FITE RITE

EMERGENCY BLANKETS

Save More Lives, Material and Equipment
Smother Gases and Fire
Quick Aid for the Injured

WOOLEN FIRE AND FIRST AID BLANKETS

This is a 4 lb. All Wool Blanket. Wool being very flame resistant, this blanket does not require treatment as do part wool blankets.

- As a wrap for shock and exposure cases.
- A must for schools
- Good for fire fighting

Each blanket comes in Self Storing Container. Hangs on Wall or Post like Fire Extinguisher.

ASBESTOS FIRE BLANKETS

Blankets available in commercial grade or Underwriters' grade Asbestos cloth.

- Smother clothing fire by wrapping victim in blanket.
- As a shield to flee through flaming area.
- Beat out or smother small fires and flash fires.
- Provides protection for machinery and equipment.

COTTON GOODS MFG. COMPANY

216 N. Clinton St. • Chicago 6, Ill.

Send for literature: Fite Rite Emergency Blankets and Bar-L Shower Curtains. Furnished in all grades of materials and sizes.

Circle No. 103 on reader service card

INDEX OF ADVERTISERS

Air Maze Corp. 58
American Allsafe Co. 46, 59
American Optical Co. 41
Ansul Chemical Co. 20
Autocall Co. 98
Ayerst Laboratories 96
Babbitt Steam Specialty Co. 45
Bar-Way Mfg. Co. 79
Bausch & Lomb Optical Co. ..... 24, Cover III
Beam's Mfg. Co. 88
Benson & Associates, Inc. 66
Bomgardner Mfg. Co. 52
Boyer-Campbell Co. Division 36
E. D. Bullard Co. 7
Bulldog Electric Products Co. 8
William J. Burns International Detective Agency 31
Carbisulphoil Co. 57
Chemical Corp. 80
Chicago Eye Shield Co. 9
Columbus McKinnon Chain Div. 91
Coppus Engineering Corp. 80
Cotton Goods Mfg. Co. 102
Dameron Enterprises, Inc. 84
Davis Emergency Equip. Co. 65
Detex Watchclock Corp. 68
E. I. du Pont de Nemours & Co. 22
Eagle Mfg. Co. 83
Economy Engineering Co. 66
Edmont, Inc. 5
Electric Storage Battery Co., Exide Industrial Division 64
Emergency Aids Co. 91
Falcon Alarm Co. 95
Fibre-Metal Products Co. 21
Flents Products Co. 102
Flexaust Co. 84
Frommelt Industries, Inc. 92
Fyrepel Products Co. 84
Flents Products Co. 102
Gerstenslager Co. 2
Globe Industries, Inc. 51
Globe Mfg. Co. 86
Gojer, Inc. 48
Graymills Corp. 100
A. E. Halperin Co. 102
Haus of Krause 16
Haws Drinking Faucet Co. 86
Hild Floor Machine Co. 45
Hy-Test Safety Shoes Div. 11
Jomac, Inc. 15
Junkin Safety Appliance Co. 56
Justrite Mfg. Co. 97
Walter Kidde & Co. 40
Walter G. Legge Co. 59
Martindale Electric Co. 99
Masury-Young Co. 19
Medical Supply Co. 49
Merrill Bros. Co. 13
Mine Safety Appliances Co. 32-33
Minnesota Mining & Mfg. Co. 39
Modern Machine Tool Co. 77
Morning Pride Mfg. Co. 57
National Glove, Inc. 58
North American Signal Co. 95
Notifier Corp. 54
Ohio Chemical & Surgical Equipment Co. 75
Orthopedic Frame Co. 14
Pac-Kit Safety Equipment Co. 99
G. H. Packwood Mfg. Co. ..... Cover II
Powhatan Brass & Iron Works 95
Prairie State Products Co. 50
Protectoseal Co. 10
Pulmosan Safety Equipment Corp. 1
Racine Glove Co. 50
Ready Made Sign Co. 87
Rochester Safety Equipment Co. 53
Rockwood Sprinkler Co. 101
Rose Mfg. Co. 38
Ruemelin Mfg. Co. 56
Safety Box Toe Co. 12
Safety First Supply Co. 100
Scott Aviation Corp. 4
Seiberling Latex Products Division 45
M. Setlow & Son, Inc. 99
Singer Glove Mfg. Co. 57
Speakman Co. 89
Standard Industrial Products Co. 46
Standard Safety Equipment Co. 76
Statikil, Inc. 99
Stephenson Corp. 87
Stonehouse Signs, Inc. 63
Surety Rubber Co. 97
Switzer Brothers, Inc. 35
Tect, Inc. 55
Training Aids 102
U-C-Lite Mfg. Co. 56
Wheeler Protective Apparel Co. 73
White Rubber Co. 53
Wilkins Co. 81
Willson Products Division, Ray-O-Vac 17-18
Wilson Rubber Co. 23
Wirt & Knox Mfg. Co. 58
Wyandotte Chemicals Division 6
X-Ray Monitoring Corp. 57

Circle No. 102 on reader service card

HAV-ALIFT SALT NOW IN 4 MODELS

Hav-aLift Salt and Salt & Dextrose Tablets, in plastic disposable dispensers, remain the most popular slow-dissolving Salt Tablets on the market.

These Coated Tablets are now available in every area, so write today for full information and the location of the Distributor nearest you!!

A. E. HALPERIN CO., INC.

75 Northampton St.
BOSTON 18, MASS.

"YOUR SAFETY — OUR BUSINESS"

Protect Your Employees against INDUSTRIAL NOISE

use FLENTS® Anti-Noise EAR STOPPLES

INDORSED BY LIABILITY INSURANCE COMPANIES

Gives Maximum Protection! Safeguards Against Compensation Claims!

1. Provides airtight seal against disturbing noise, yet permits normal conversation.
2. No sizes or fittings to bother with. Flents are soft, pliable and mold easily to fit all ear canals.
3. LOW COST make Flents disposable after use. A vital health factor.
4. Preferred by workers for comfort.
5. Proven superior by independent tests!
6. Gov't endorsed, standard supply for Air Force personnel.

Send for Free testing samples. Ask for "INDUSTRIAL NOISE" booklet

USED BY 'BLUE CHIP' INDUSTRIAL FIRMS OVER 30 YEARS

FLENTS
PRODUCTS COMPANY, Inc
103 Park Ave. New York 17, N. Y.

Circle No. 104 on reader service card

BAUSCH & LOMB
SAFETY
PRODUCTS

Nylok Temple Screws are re-usable!
Nylok patented nylon pellet construction guarantees temple screws always tightly locked in place, *yet always re-usable.*

Now this tiny screw makes B&L safety eyewear even safer

To make sure safety eyewear *stays* safe—to make certain you get all comfort, convenience and mileage possible—Bausch & Lomb adds another plus to its line of Protection-*PLUS* Safety Eyewear.

Famous Nylok self-locking, re-usable screws now are standard in the temple hinges of all B&L Safety frames—plastic, metal and combination. Nylok screws cannot loosen and back out. They stay snugly seated.

With temples always firmly in place, never loose or wobbly, glasses stay properly positioned before the eyes. This is a big comfort feature—important to the disposition and safety of the wearer.

Features like this justify the "Protection-*PLUS*" label for B&L Safety Products. They mean extra margins of safety, of economy, of worker acceptance. Ask your supplier to acquaint you with the complete line, or write: Bausch & Lomb Incorporated, 90418 Lomb Park, Rochester 2, N. Y.

BAUSCH & LOMB
SINCE 1853

Protection PLUS Safety Products

protection + economy + worker acceptance

Circle No. 2 on reader service card

You should be growing right out of your job

Your specialized business magazine is the vitamin supplement it takes to keep your career growth moving right along. Vitamins alone won't carry you very far: they simply help you use basic career-building nutrients—hard work is a popular one—more effectively. But the man who works smarter and harder than the next fellow has a pretty good combination going for himself.

You will find in each issue of OCCUPATIONAL HAZARDS a balanced combination of the information supplements your progress needs: it is written by specialists to solve your problems in safety, fire protection, security, and housekeeping.

This hard-working editorial package will give you ideas you can put to work on your job. They will help you become more valuable to your company and to yourself. Check the contents page now for ideas you can use. And for more facts on any items described or advertised in this issue, use the handy Reader Service Cards.

Occupational Hazards®

AN INDUSTRIAL PUBLISHING CORPORATION MAGAZINE

812 HURON ROAD • CLEVELAND 15, OHIO • SUPERIOR 1-9620
OFFICES: NEW YORK • CHICAGO • LOS ANGELES • LONDON

FRANCHISE CIRCULATION — *Franchise Circulation gets magazines to the men who buy*

DISTILLED WRITING — *Distilled Writing gets magazines read*